

STATE OF CALIFORNIA
 FINANCE LETTER - COVER SHEET
 FOR FISCAL YEAR 2006-07
 DF-46 (REV 1/06)

Please report dollars in thousands.

FL #	FLEP-01	PRIORITY NO.	ORG. CODE	4260	DEPARTMENT	Health Services
PROGRAM	10	ELEMENT	20	COMPONENT	10	

TITLE OF PROPOSED CHANGE:

ADDRESSING GAPS IN HEALTH CARE SURGE CAPACITY

SUMMARY OF PROPOSED CHANGES:

The CDHS is requesting resources to address gaps in California's capacity to provide healthcare services required during emergencies.

REQUIRES LEGISLATION	CODE SECTION TO BE AMENDED / ADDED.	BUDGET IMPACT-- PROVIDE LIST AND MARK IF APPLICABLE
YES <input type="checkbox"/>		ONE-TIME COST <input type="checkbox"/>
NO <input checked="" type="checkbox"/>		FUTURE SAVINGS <input type="checkbox"/>
		FULL-YEAR SAVINGS <input type="checkbox"/>
		REVENUE <input type="checkbox"/>
		FACILITIES / CAPITAL COSTS <input type="checkbox"/>

PREPARED BY: _____ Date _____

REVIEWED BY BUDGET ANALYST _____ Date _____ REVIEWED BY MANAGER _____ Date _____

Zoe Smith H. Hyman 5-10-06

APPROVED BY (DEPARTMENT DIRECTOR) _____ Date _____ AGENCY SECRETARY _____ Date _____

Mark B. ... 5/10/06

IF THIS PROPOSAL AFFECTS ANOTHER DEPARTMENT, DOES THE OTHER DEPARTMENT CONCUR WITH THE PROPOSAL?

☐ YES ☒ NO

ATTACH COMMENTS OF AFFECTED DEPARTMENT, SIGNED AND DATED BY THE DEPARTMENT DIRECTOR OR DESIGNEE.

DOES THIS PROPOSAL CONTAIN INFORMATION TECHNOLOGY (IT) COMPONENTS?

☐ YES ☒ NO

IF YES, DEPARTMENT CHIEF INFORMATION OFFICER SIGNATURE _____ DATE _____

FOR INFORMATION TECHNOLOGY REQUESTS, SPECIFY THE DATE THE FEASIBILITY STUDY REPORT (FSR) OR SPECIAL PROJECT REPORT (SPR) WAS APPROVED BY DOF.

DATE: _____ PROJECT No.: _____ FSR ☐ OR SPR ☐

DEPARTMENT OF FINANCE ANALYST USE (ADDITIONAL REVIEW)

<input type="checkbox"/>	CAPITAL OUTLAY	<input type="checkbox"/>	OSAE
<input type="checkbox"/>	OTROS	<input type="checkbox"/>	CALSTARS
<input type="checkbox"/>	FSCU		

STATE OF CALIFORNIA
FINANCE LETTER - FISCAL DETAIL
DF-46 (WORD/EXCEL) (REV 01/06)

Please report dollars in thousands.

FL No.: FLEP-01	Date: 5/18/2006	TITLE OF PROPOSED CHANGE: ADDRESSING GAPS IN HEALTH CARE SURGE CAPACITY
PROGRAM: 10	ELEMENT: 20	COMPONENT: 10

PERSONNEL SERVICES	PERSONNEL YEARS			DOLLARS		
	CY	BY	BY+1	CY	BY	BY+1
Salaries & Wages	0.0	8.5	8.5	0	565	565
Salary Savings	0.0	-0.4	-0.4	0	-27	-27
Temporary Help	0.0	0.0	0.0	0	0	0
Overtime	xxx	xxx	xxx	0	0	0
Net Salaries & Wages	0.0	8.1	8.1	0	538	538
Staff Benefits	xxx	xxx	xxx	0	176	176
Total Personal Services	0.0	8.1	8.1	0	714	714

OPERATING EXPENSES & EQUIPMENT

General Expense	0	30	30
Printing	0	13	13
Communications	0	13	13
Postage			
Travel-In State		82	82
Travel-Out of State			
Training	0	4	4
Facilities Operations	0	77	77
Consultant & Professional Services-Interdepartmental (provide list)	0	0	0
Consultant & Professional Services-External (provide list)	0	0	0
Departmental Services			
Dist. Admin			
Dist Legal			
Dist Facilities Ops	0	77	77
Dist Consolidated Data Center	0	8	8
Dist Communications	0	13	13
Dist Program Overhead			
Data Processing	0	8	8
Equipment (provide list)	0	0	0

OTHER ITEMS OF EXPENSE: (specify below)

Office Automation	0	28	0
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Total Operating Expenses & Equipment

0	353	325
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SPECIAL ITEMS OF EXPENSE

Local Assistance		387,139	29,816
Local Assistance [Non-Add]			
Internal Cost Recovery	0	-98	-98
Total Expenditures	0	388,108	30,757

SOURCE OF FUNDS

APPROPRIATION

	ORG	REF	FUND			
General Fund	4260	001	0001		545	517
Licensing & Certification Fund	4260	001	3098		424	424
General Fund	4260	111	0001		387,139	29,816
	4260					
	4260					
TOTAL FUNDS				0	388,108	30,757

FL No.:	FLEP-01	Date:	5/18/2006	TITLE OF PROPOSED CHANGE:	ADDRESSING GAPS IN HEALTH CARE SURGE CAPACITY
PROGRAM:	10	ELEMENT:	20	COMPONENT:	10

STAFF BENEFIT DETAIL (WHOLE DOLLARS)

	BENEFIT RATES		Current Year	Budget Year	Budget Year +1
	Misc.	PO Rate			
OASDI	0.05677	0.05677		30,479	30,479
Health, Dental, & Vision Benefits	0.11237	0.11237		60,329	60,329
Employee's Retirement	0.15942	0.19026		85,589	85,589
Total (Reflects 5% Salary Savings Rate)	0.32856	0.35940		176,397	176,397

SALARIES & WAGES DETAIL (WHOLE DOLLARS)

[illegible][illegible]

TOTAL, REGULAR POSITIONS		8.5	8.5		565,134	565,134
Temporary Help						
Overtime						
TOTAL SALARIES AND WAGES		8.5	8.5		565,134	565,134
Partial Year Adjunct						
TOTAL PERSONNEL YEARS		8.5	8.5			

STATE OF CALIFORNIA
FINANCE LETTER - FISCAL DETAIL
OPERATING EXPENSE DETAIL
 DF-46 (WORD/EXCEL) (REV 01/06)

FL No.: FLEP-01	Date: 5/18/2006	TITLE OF PROPOSED CHANGE: ADDRESSING GAPS IN HEALTH CARE SURGE CAPACITY	
PROGRAM: 10	ELEMENT: 20	COMPONENT: 10	

EQUIPMENT AND CONTRACT DETAIL (WHOLE DOLLARS)

Major Equipment (List Items)	Units	Cost/ Unit	Total Cost Current Year	Total Cost Budget Year	Total Cost Budget Year+1
Minor Equipment (List Items)					
TOTAL EQUIPMENT					

**Consultant & Professional Services -
Interdepartmental List (Identify Contractor)**

Consultant & Professional Services - Interdepartmental List (Identify Contractor)	Total Cost Current Year	Total Cost Budget Year	Total Cost Budget Year+1
TOTAL INTERDEPARTMENTAL CONTRACTS	0	0	0

Consultant & Professional Services - External List (Identify Contractor)

Consultant & Professional Services - External List (Identify Contractor)	Total Cost Current Year	Total Cost Budget Year	Total Cost Budget Year+1
	0		
TOTAL EXTERNAL CONTRACTS	0	0	0

SUPPLEMENTAL INFORMATION*Please report dollars in thousands.*

DEPARTMENT	Health Services	FL #	FLEP-01	FISCAL YEAR	2006-07
IDENTIFY ALL PROPOSED ITEMS WHICH FIT INTO THE CATEGORIES LISTED BELOW. SEE INSTRUCTIONS ON PAGES I-					
	CURRENT YEAR	BUDGET YEAR	BUDGET YEAR + ONE		
PROPOSED EQUIPMENT					
Major Equipment	-	-	-		
Minor Equipment	-	-	-		
TOTAL	\$ -	\$ -	\$ -		
PROPOSED CONTRACTS					
Interdepartmental	-	-	-		
External	-	-	-		
TOTAL	\$ -	\$ -	\$ -		
ONE-TIME COSTS (LIST BY ITEM)					
Office Automation	-	28	-		
Equipment	-	-	-		
TOTAL	\$ -	\$ 28	\$ -		
FUTURE SAVINGS					
TOTAL	\$ -	\$ -	\$ -		
FULL-YEAR COST ADJUSTMENTS					
TOTAL	\$ -	\$ -	\$ -		
FACILITIES/CAPITAL COSTS *					
TOTAL	\$ -	\$ -	\$ -		

WORKLOAD ANALYSIS
EMERGENCY PREPAREDNESS OFFICE
STAFF SERVICES MANAGER III

Activity	Number of Items	Hours per Item	Total Hours
Provides leadership and direction to plan and implement health care surge capacity in California. Manages surge capacity activities performed by the Department of Health Services (CDHS).	53	6	318
Provides general supervision of the SSM II and surge activities and HRSA grant activities.	52	6	312
Provide policy direction in rapid development of surge guidance, including staffing, emergency flexibility for standards of care, alternate care sites, and training for local health departments and hospitals.	52	6	312
Represents CDHS at high level meetings with stakeholders including the California Hospital Association, California Primary Care Association, California Nurses Association, the Emergency Medical Services Authority, Office of Statewide Health Planning and Development, Health and Human Services Agency, relating to health care surge capacity.	52	6	312
Implement guidance on liability protection, reimbursement, and training of hospital staff.	52	5.5	286
Plan and implement alternate care sites for use in catastrophic emergencies.	52	5	260
Total hours for workload projected for this classification			1800
1800 hours = 1 PY			
Actual number of PY's requested			1.0

WORKLOAD ANALYSIS
EMERGENCY PREPAREDNESS OFFICE
ASSOCIATE GOVERNMENTAL PROGRAM ANALYST
STATE GUIDANCE

Activity		Number of Items	Hours per Item	Total Hours
Prepare scope of work for consultant for rapid development of State surge guidance on licensing flexibility, liability protection, and reimbursement with health facilities, licensed professionals, and volunteers.		1	200	200
Participate in stakeholder workgroups developing surge guidance.		52	8	416
Provide contract oversight of consultant progress in developing surge guidance and templates.		19	20	380
Work with hospitals and other stakeholders to implement hospital requirement for surge plan development.		20	16	320
Work with counties, hospitals and community organizations to establish alternate care sites.		12	8	96
Prepare reports on progress and issues related to guidance development.		52	4	208
Conduct regional meetings to provide technical assistance to hospitals and local health departments on implementation of surge guidance and templates.		12	15	180
Total hours for workload projected for this classification				1800
1800 hours = 1 PY				
Actual number of PY's requested				1

May 10, 2006

WORKLOAD ANALYSIS
Licensing & Certification Division
Policy Section
Health Facilities Evaluator Nurse

One full-time Health Facilities Evaluator Nurse (HFEN) for a two-year period to develop regulations to govern acute care hospitals and other types of health care facilities during major emergencies or disasters. HFEN is required to provide the clinical and license/survey experience in health facilities required to develop these regulations.

Activity	Number of Items	Hours per Item	Total Hours
Prepare for, convene and work with stakeholders to develop a regulatory objective to be met for acute care hospitals and other health care facilities during a major emergency in California.	8 meetings	8	64
Development a work plan for the development regulations for acute care hospitals and other health care facilities during a major emergency in California.	1.5 month	176	264
Research hospital emergency preparedness information, current and past practices, current state and federal laws and regulations, professional guidelines and other various data sources, emergency preparedness response for acute care hospitals and other health care facilities during a major emergency in California.	2 months	176	352
Provide hospital emergency preparedness expertise for the development of correspondence to stakeholders to obtain their input (including internal review and subsequent revisions).	1 major regulation package	40	40
Provide hospital emergency preparedness expertise to review and analyze all recommendations from the internal meetings and stakeholders.	2 weeks	40	80
Provide hospital emergency preparedness expertise and assist in drafting regulation. Review and comment on draft regulation package.	1 major regulation package	672	672
Review public comments and testimony (received during the 45-Day) regarding hospital emergency preparedness practices and provide feedback to appropriate staff.	2 weeks	40	80
Provide responses to hospital emergency preparedness comments; provide hospital emergency preparedness expertise for preparation of an Updated Digest and Final Statement of Reasons and other final documents.	1 major regulation package	160	160
Total hours for workload projected for this classification			1712
1800 hours = 1 PY			
Actual number of PY's requested			1PY

WORKLOAD ANALYSIS
Licensing & Certification Division
Policy Section
Nurse Consultant III

One full-time Nurse Consultant III (NCIII) for a two-year period to develop regulations to govern infection control in health facilities. NCIII level required because the infection control regulations will require extensive nursing experience and current knowledge of infection control clinical protocols.

Activity	Number of Items	Hours per Item	Total Hours
Prepare for and convene and work with stakeholders to develop a regulatory objective to be met for infection control practices in California.	8 meetings	8	64
Development a work plan for the development of infection control regulations.	1.5 month	176	264
Research current and past hospital infection control practices, current state and federal laws and regulations, various data sources, studies, medical protocols.	2 months	176	352
Provide infection control medical expertise for the development of correspondence to stakeholders to obtain their input (including internal review and subsequent revisions).	1major regulation package	40	40
Provide infection control medical expertise to review and analyze all recommendations from the internal meetings and stakeholders.	2 weeks	40	80
Provide infection control expertise and assist in drafting regulation. Review and comment on draft regulation package.	1 major regulation package	672	672
Review public comments and testimony (received during the 45-Day) regarding infection control practices and provide feedback to appropriate staff.	2 weeks	40	80
Provide responses to infection control comments; provide infection control expertise for preparation of an Updated Digest and Final Statement of Reasons and other final documents.	1 major regulation package	160	160
Total hours for workload projected for this classification			1712
1800 hours = 1 PY			
Actual number of PY's requested			1PY

WORKLOAD ANALYSIS
Office of Legal Services
Office of Regulations
Nurse Consultant III
Addressing Gaps in Health Care Surge Capacity

Activity	Number of Items	Hours per Item	Total Hours
Provide technical assistance on developing regulation packages.	5	6	30
Review proposed regulation packages.	5	16	80
Prepare review memo on needed changes required by Administrative Procedure Act, other laws and regulations. Provide follow up assistance to programs.	5	16	80
Coordinate all HHSA/DOF/OLS and other Mgmt briefings/reviews throughout process.	5	6	30
Review revised packages from program, compare to OOR and OLS direction.	5	20	100
Assist program staff and counsel in editing/redrafting regulation text, and the Statement of Reasons.	5	12	60
Prepare public notice package.	5	4	20
Respond to public on pending regulations, during comment period.	5	8	40
Review, organize, and transmit comments.	5	6	30
Provide direction to programs on how to address comments, prepare FSOR and UID, and coordinate with counsel.	5	12	60
Review proposed post hearing changes.	5	12	60
Review FSOR/UID/Responses to Comments.	5	10	50
Prepare Filing Order/Certificate of Compliance.	5	10	50
Coordination with the Office of Administrative Law (OAL) (especially on disapprovals).	5	8	40
Maintenance of Public Rulemaking Files.	5	6	30
Prepare and route emergency re-adoption packages.	5	10	50
Respond to public and internal inquiries throughout the process.	5	18	90
Total hours for workload projected for this classification			900
1800 hours = 1 PY			
Actual number of PY's requested			0.5 PY

Workload Analysis
Office of Legal Services
Senior Staff Counsel

This proposal recognizes the need for one senior staff counsel to work exclusively on disaster-related regulations in the California Code of Regulations Title 22 (22 CCR), and the special legal requirements involved in drafting regulations. Legal counsel would provide liaison with litigation attorneys, house counsel and California and U.S. Department of Justice officials dealing with litigation on regulations, qui tams, program audits from state and federal authorities, and other inquiries.

Review of Draft Regulations by Counsel

<u>Senior Staff Counsel 1.0 FTE position</u>	
Review proposed regulations for to ascertain if proposals are within state and federal authority.	320
Review advice letter provided by Office of Regulations. Determine if additional legal issues remain unaddressed.	125
Review draft regulations that seek to implement federal and state statutes, and federal regulations; ensure the regulations are consistent with all related existing federal and state statutes.	50
Review submitted forms, agreements, disclosure statements, and attached documents, for conformance to law, e.g., needed to implement proposed regulations.	280
Render legal opinions on the adequacy of programmatic scheme for implementing federal and state statutes, including adequacy of sanctions, impact on fair hearing process and constitutional protections.	280
Provide legal advice to Office of Regulations and program staff in redrafting regulation provisions and supporting documentation (Statement of Reasons).	255
Provide legal advice to other OLS attorneys involved in litigation on subject regulations.	90
Analyze federal and state legal citations, including required authority and reference citations, as applicable to each regulation section proposed to be adopted, amended or repealed.	320
Respond to inquiries from CA and US Department of Justice on pending and existing regulations.	80
Total	1,800
Additional hours required to implement proposal: 1,800	
Average hours per person: 1,800	
Additional FTEs needed: 1	

May 10, 2006

WORKLOAD ANALYSIS
EMERGENCY PREPAREDNESS OFFICE
STAFF SERVICES MANAGER II

Activity	Number of Items	Hours per Item	Total Hours
Oversees the management of analytical and administrative functions of the Health Care Surge and HRSA Units.	40	10	400
Working with consultants, assure the development of guidance, templates, and procedures for local health departments and hospitals.	32	25	800
Coordinate technical assistance to the local and regional levels on surge issues.	20	15	300
Represent CDHS at stakeholder meetings relating to health care surge needs.	50	6	300
Total hours for workload projected for this classification			1800
1800 hours = 1 PY			
Actual number of PY's requested			1.0

May 10, 2006

WORKLOAD ANALYSIS
EMERGENCY PREPAREDNESS OFFICE
ASSOCIATE GOVERNMENTAL PROGRAM ANALYST (2 POSITIONS)

Activity	Number of Items	Hours per Item	Total Hours
Provide assistance to local health departments in identifying pandemic-level surge capacity purchases for alternate care sites.	61	18	1098
Secure vendors to supply medical supplies and equipment needed for pandemic-level surge capacity including alternate care sites.	20	30	600
Monitor contract invoicing, purchases of supplies, equipment, etc. relating to purchases on behalf of LHDs	22	6	132
Track receipt of purchases.	61	4	244
Identify and maintain storage sites for medical supplies and equipment; oversee security and distribution to individual hospitals, clinics, and alternate care sites; manage rotation of supplies and equipment to utilize aging material.	61	25	1525
Total hours for workload projected for this classification			3599
1800 hours = 1 PY			
Actual number of PY's requested			2.0

May 10, 2006

STATE OF CALIFORNIA
BUDGET CHANGE PROPOSAL--COVER SHEET
FOR FISCAL YEAR 2006-2007

Department of Finance
915 L Street
Sacramento, CA 95814
IMS Mail Code: A-15

DF-46 (WORD/EXCEL) (REV 03/05)

Please report dollars in thousands.

BCP No. FLEP01	PRIORITY NO.	ORG. CODE 4120	DEPARTMENT EMSA
PROGRAM Disaster Medical Services	ELEMENT N/A	COMPONENT 0001 - General Fund	

TITLE OF PROPOSED CHANGE

Addressing Gaps in Healthcare Surge Capacity (Mobile Field Hospitals)

SUMMARY OF PROPOSED CHANGES

The EMS Authority is requesting a total of \$12.316 million in General Fund authority in 2006-07 and \$1.241 million in ongoing General Fund authority to fund the equipment and maintenance of two Mobile Field Hospitals (MFH's). This funding is necessary to provide life saving resuscitative and reconstructive medical surgical services to relieve suffering for disaster victims. The provision of two Health Program Specialist I positions and one Health Program Manager II position is also requested to support the MFH's and provide for training, exercises, and drills regarding their deployment.

REQUIRES LEGISLATION <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	CODE SECTION(S) TO BE AMENDED/ADDED	BUDGET IMPACT-PROVIDE LIST AND MARK IF APPLICABLE <input type="checkbox"/> ONE-TIME COST <input checked="" type="checkbox"/> FULL-YEAR COSTS <input type="checkbox"/> FACILITIES/CAPITAL COSTS <input type="checkbox"/> FUTURE SAVINGS <input type="checkbox"/> REVENUE	
PREPARED BY Richard Trussell	DATE May 10, 2006	REVIEWED BY Dan Smiley	DATE May 10, 2006
DEPARTMENT DIRECTOR Cesar A. Aristeiguieta, M.D.	DATE May 10, 2006	AGENCY SECRETARY	DATE

IF PROPOSAL AFFECTS ANOTHER DEPARTMENT, DOES OTHER DEPARTMENT CONCUR WITH PROPOSAL?

☐ YES ☒ NO ATTACH COMMENTS OF AFFECTED DEPARTMENT, SIGNED AND DATED BY THE DEPARTMENT DIRECTOR OR DESIGNEE.

FOR INFORMATION TECHNOLOGY REQUESTS, SPECIFY THE DATE SPECIAL PROJECT REPORT (SPR) OR FEASIBILITY STUDY REPORT (FSR) WAS APPROVED BY THE DEPARTMENT OF FINANCE.

DATE	PROJECT#	FSR <input type="checkbox"/>	OR	SPR <input type="checkbox"/>
DEPARTMENT OF FINANCE ANALYST USE (ADDITIONAL REVIEW)				
CAPITAL OUTLAY	<input type="checkbox"/>	OTROS	<input type="checkbox"/>	FSCU <input type="checkbox"/> OSAE <input type="checkbox"/> CALSTARS <input type="checkbox"/>

STATE OF CALIFORNIA
BUDGET CHANGE PROPOSAL - FISCAL DETAIL
STATE OPERATIONS

DF-46 (WORD/EXCEL) (REV 03/05)

Please report dollars in thousands.

BCP No.:		DATE: 4/12/06		TITLE OF PROPOSED CHANGE: Mobile Field Hospitals		
PROGRAM: Disaster Medical Services		ELEMENT: N/A		COMPONENT: 0001 - General Fund		
	PERSONNEL YEARS			DOLLARS		
	CY	BY	BY+1	CY	BY	BY+1
TOTAL SALARIES AND WAGES ¹		3	3	\$0	\$189	\$189
SALARY SAVINGS		-0.2	-0.2		-\$9	-\$9
NET TOTAL SALARIES AND WAGES	0.0	2.9	2.9	\$0	\$180	\$180
OVERTIME					\$0	\$0
STAFF BENEFITS ²					\$73	\$73
TOTAL PERSONAL SERVICES	0.0	2.9	2.9	\$0	\$253	\$253
OPERATING EXPENSES AND EQUIPMENT ³						
GENERAL EXPENSE					66	66
PRINTING					1	1
COMMUNICATIONS					7	7
POSTAGE					1	1
INSURANCE					0	0
TRAVEL-IN STATE					21	21
TRAVEL-OUT OF STATE					0	0
TRAINING					2	2
FACILITIES OPERATIONS					309	309
UTILITIES					0	0
CONSULTING & PROFESSIONAL SERVICES: Interdepartmental ³					0	0
CONSULTING & PROFESSIONAL SERVICES: External ³					530	530
DATA PROCESSING					4	4
EQUIPMENT ³					11,091	16
DEBT SERVICE					0	0
OTHER ITEMS OF EXPENSE: (Specify below)					0	0
DEPARTMENTAL SERVICES					31	31
TOTAL OPERATING EXPENSES AND EQUIPMENT				\$0	\$12,063	\$988
SPECIAL ITEMS OF EXPENSE ⁴				\$0	\$0	\$0
TOTAL STATE OPERATIONS EXPENDITURES				\$0	\$12,316	\$1,241
SOURCE OF FUNDS						
	APPROPRIATION					
	ORG	REF	FUND			
GENERAL FUND	4120	001	0001	\$0	\$12,316	\$1,241
SPECIAL FUNDS						
FEDERAL FUNDS	4120	001	0890			
OTHER FUNDS (SPECIFY)						
REIMBURSEMENTS	4120	001	0995			

DF-46 (WORD/EXCEL) (REV 03/05)

STAFF BENEFITS DETAIL (WHOLE DOLLARS)	CY	BY	BY+1
OASDI/MEDICARE		\$14,462	\$14,462
HEALTH INSURANCE		\$26,617	\$26,617
RETIREMENT ⁶ (Peace Officer/Safety)		\$30,133	\$30,133
WORKERS' COMPENSATION		\$1,493	\$1,493
INDUSTRIAL DISABILITY LEAVE		0	\$0
NON-INDUSTRIAL DISABILITY LEAVE		0	\$0
UNEMPLOYMENT INSURANCE		0	\$0
OTHER: MEDICARE TAX		\$0	\$0
TOTAL ⁷	\$0	\$72,706	\$72,706

SUPPLEMENTAL INFORMATION
DF-46 (WORD/EXCEL) (REV 03/05)

Please report dollars in thousands.

DEPARTMENT: EMSA		BCP No: Mobile Field Hospitals	FISCAL YEAR: 2006-2007	
	CURRENT YEAR	BUDGET YEAR	BUDGET YEAR + ONE	
PROPOSED EQUIPMENT				
Two Mobile Field Hospitals		\$6,670,000		
Replacement of Expired Pharmaceuticals		\$16,000	\$16,000	
Forklift		\$40,000		
Flat Bed Truck		\$400,000		
Ventilators		\$3,265,200		
Hepa Filters		\$700,000		
TOTAL	\$0	\$11,091,200	\$16,000	
PROPOSED CONTRACTS (BOTH EXTERNAL AND INTERDEPARTMENTAL)				
Maintenance contracts for the field hospitals.		\$30,000	\$30,000	
Emergency Response: 24 hour on call setup & support		\$400,000	\$400,000	
Training Exercises: 24 hour on call setup & support		\$100,000	\$100,000	
TOTAL	\$0	\$530,000	\$530,000	
ONE-TIME COSTS (LIST BY ITEM)				
Two Mobile Field Hospitals		\$6,670,000		
Forklift		\$40,000		
Flat Bed Truck		\$400,000		
Ventilators		\$3,265,200		
Hepa Filters		\$700,000		
TOTAL	\$0	\$11,075,200	\$0	
FUTURE SAVINGS				
TOTAL	\$0	\$0	\$0	
FULL-YEAR COST ADJUSTMENTS				
TOTAL	\$0	\$0	\$0	
FACILITIES/CAPITAL COSTS⁸				
TOTAL	\$0	\$0	\$0	

ADDITIONAL ADJUSTMENTS OR INFORMATION (Use this space for any other supplemental information.)

¹ Itemized detail on page B-2 by classification (as in Salaries and Wages Supplement)

² Provide detail on page B-2.

³ Provide list on page B-3.

⁴ Special Items of Expense must be titled. Please refer to the Uniform Codes Manual for a list of the standardized special items of expense that may be used.

⁵ Use standard abbreviations per the Salaries and Wages Supplement. Use footnotes to reflect any effective date or limited term if position is not proposed for a full year. **Note: Information provided should appear in the same format as it would appear on the Schedule 2 (Changes in authorized Positions).**

⁶ List type of retirement, i.e., miscellaneous, safety, industrial, etc.

⁷ Totals must be rounded to the nearest thousand dollars before posting to page B-1.

⁸ Indicate one-time or ongoing.

EMERGENCY MEDICAL SERVICES AUTHORITY
WORKLOAD ANALYSIS
CALIFORNIA MOBILE FIELD HOSPITAL ALL HAZARD RESPONSE PROGRAM
HEALTH PROGRAM MANAGER I

<p>Manage The Mobile Field Hospital (MFH) All Hazard Response Program, which involves managing the Mobile Field Hospital Departments as well as other deployable field response assets such as the Ambulance Strike Teams (ASTs), California Medical Assistance Teams (CalMat), and Mission Support Teams (MSTs).</p> <p>Oversee and monitor a variety of administrative tasks necessary to develop and manage the Program; such as management of staff, consultants, volunteers and the program budget.</p>	Program Management	14.0 hrs/wk x 50	Based on experience from other programs	700 hours	HPM I
<p>Oversee development of State Plans and Local Guidance – provide staff oversight of state plans for the mobilization of the various response teams such as MFH deployment teams and CalMat's. Oversee threat Assessment and Operational Protocols for EMS systems, ambulance providers and mutual aid regions.</p>	2 Plans 3 Planning Guidances	13.3 hours/month	Based on experience from other programs	160 hours	HPM I

Supervise Program Professional staff - Attend EMSA managers' meetings and division meetings, conduct Division meetings, approve staff time sheets and travel claims, review probation reports and individual development plans.	Supervise 12 Staff including time sheets, travel claims, prob. rpts, etc. Division mtgs.	1 hour/ week/each/ average x 50 weeks. 1 hr/wk x 50	Based on experience from other programs	50 hours 50 hours	HPM I
Collaborate With Contract Medical Consultant - Coordinate work of contract medical consultant with Program staff. Discuss Program medical issues with medical consultant regarding regulations and policies; hospital practices, austere care; medical surge capacity; hospital sanitization, CDC guidelines, etc.	1 medical consultant	8 hours per month	Based on experience from other programs	96 hours	HPM I
Attend Program Advisory Committee And Other Meetings - Attend high-level Program Advisory committee meetings. Oversee Committee meeting findings. Determine viability within the state policies, regulations, and priorities related to health services financing, health services delivery and disease prevention. Review all materials developed by staff to be provided to the Program Advisory committee. Attend meetings and conferences relating to chemical, biological, radiological, nuclear or explosive threats at the local, state and national level.	1 extended program start up meeting 12 all day meetings 2 National/ State Conferences/ Forums/ yr	40 hours including preparation 15 hours per meeting 95 hours/ conference/ issue forum	Based on experience from other programs	40 hours 180 hours 190 hours	HPM I
Provide Professional	OES	1 hr/wk x 50	Based on	50 hours	HPM I

Expertise to the Office of Emergency Services, and Department of Health Services- Coordinate with OES, JEOC, CDHS, DSS, Law Enforcement, Fire Service, Local EMS Agencies and the State Warning Center within OES regarding the mobilization of MFH's, ASTs, MSTs, and CalMats. Represent the EMS Authority regarding the development and integration of these mutual-aid resources into the SEMS process.	Meetings CDHS Meetings	4 hrs/wk x 50	experience from other programs	200 hours	
Oversee Program Development with contractors. Along with HPM I, oversee development and implementation of systems and training for the permanent intermittent (PI) personnel to staff the MFHs, ASTs, MSTs, and CalMats.		4.5 hours/month	Based on experience from other programs	54 hours	HPM I
Provide Technical Assistance - Review responses made by staff in writing to questions, complaints and issues regarding the Program.	5 calls, letters, e- mail requests per month	10 minutes per response	Based on experience from other programs	10 hours	HPM I
TOTAL				1780	1.0 HPM I

EMERGENCY MEDICAL SERVICES AUTHORITY
WORKLOAD ANALYSIS
MOBILE FIELD HOSPITAL PROGRAM
HEALTH PROGRAM SPECIALIST I, (2 positions)

Activity/Task Name Description	Units	Hours/ Units	Basis for Workload	Total Hours	Staff Level
Research, Develop, and Implement State Plans for the Mobile Field Hospital Concept initially and annual updates. Research applicable regulations and develop policies and procedures with input from CDHS Licensing and Certification, OSHPD, OES, CNG, Joint Commission on Accreditation of Healthcare Organizations, California Healthcare Association and Local EMS Agencies. Predetermine potential sites for Mobile Field Hospital locations throughout California. HPS I positions would be assigned geographic areas, one to Northern California and one to Southern California.	4 Complex Issues Related to the Development & Operation of Mobile Field Hospitals	10 hours/wk x 50 weeks	Based on experience from other programs	1000 hours	HPS-I
Facilitate Program Advisory Meetings, Task Force, Other Meetings and Professional Development Training. Act as lead facilitator for developing policy and regulations related to the Mobile Field Hospital Concept with stakeholder groups, i.e., CDHS Licensing and Certification, OSHPD, OES, CNG, Joint Commission on Accreditation of Healthcare Organizations, California Healthcare Association and the Local EMS Agencies.	1 Extended Program Start Up Meeting 12 All Day Committee Meetings 6 Conference Calls 3 National/State Conferences/Forums/Yr	4 hours/week x 50 weeks 30 hrs/conf. x 3	Based on experience from other programs	400 hours 180 hours	HPS-I

<p>Coordinate the Formation of Two Mobile Field Hospitals with 200-400 bed capability staged throughout California in low risk seismic areas.</p> <p>Requires research and comparison analysis in determining the purchase of the most appropriate mobile field hospitals for California's needs. Pricing and purchasing live-saving medical equipment, consumable medical supplies, and pharmaceuticals through the Department of General Services Procurement process.</p>	<p>Follow DGS Procurement Procedures for Purchase Mobile Field Hospitals, generate necessary forms</p> <p>Create Lists of needed equipment, supplies, and pharmaceuticals to be purchased in bulk; work closely with DGS</p>	<p>8 hours x week x 50 wks</p>	<p>Based on experience from other programs</p>	<p>800 hours</p>	<p>HPS-I</p>
<p>Develop Policy and Procedures Manual in Collaboration with other HPS-Is. Applying health regulations; policies and health program standards for the operation of the Mobile Field Hospitals. Create manual to include necessary staff to man the hospitals; Standard Operating Procedures for use by medical staff; appropriate medical procedures to be performed in an austere setting; patient care; procedures for using the equipment, patient tracking procedures; DEA pharmaceutical requirements; etc. Will include procedures for hospital self-sufficiency.</p>	<p>1 Policy and Procedure Manual</p>	<p>4 hours/wk x 50 wks</p>	<p>Based on experience from other programs</p>	<p>400 hours</p>	<p>HPS-I</p>

Activity/Task Name Description	Units	Hours/ Units	Basis for Workload	Total Hours	Staff Level
Monitor Contract Process. Serve as team member, point of contact, for the UC Davis HBPP Contract specifically related to Mobile Field Hospital training plan for hospital staff; patient tracking system; activation procedures; hospital personnel training plan and web-based core training curriculum. Requires evaluating and monitoring deliverables from contractor.	50 Weekly Conference Calls of ½ hour duration 8 EMSA/UCD Meetings 1/2 Day 1 Analysis on Deliverables from Contractor related to Mobile Field Hospitals	2.0 hrs/wk x 50	Based on experience from other programs	200 hours	HPS-I
Provide Administrative Oversight and Technical Assistance to the MFH program. Participate in the administrative management of the Mobile Field Hospitals, ensure accountability for financial, equipment, supplies, pharmaceuticals, warehouse storage, policies and procedures, training requirements. Participate in written correspondence, phone calls, and conference calls.	Responding to 15 requests per month for information from letters, calls, emails re MFH's. Review of contracts and invoices, audits	10 minutes per response 2 hours per week X 50 weeks	Based on experience from other programs	120 hours 200 hours	HPS-I
Plan and conduct quarterly training exercises. Identify training needs. Plan, develop, and conduct training sessions for the MFH deployment teams.	4 quarterly training exercises per quarter	32.5 hours per training	Based on experience from other programs	260 hours	HPS-I
				Total: 3560	2.0 HPS-I's

**DEPARTMENT OF HEALTH SERVICES
FINANCE LETTER
FY 2006-2007**

ADDRESSING GAPS IN HEALTH CARE SURGE CAPACITY

A. NATURE OF REQUEST

The Governor's January budget included initiatives on emergency preparedness from several state agencies, including the California Department of Health Services (CDHS) and the California Emergency Medical Services Authority (EMSA). None of the January proposals addressed the health care system's patient care capacity (also known as "surge capacity"), however the Administration committed in budget descriptions that the May Revision would include an initiative on surge capacity.

CDHS and EMSA are seeking to address gaps in California's capacity to provide healthcare services required during both moderate and catastrophic emergencies. Prior to making this request, CDHS reviewed existing federal funds to determine how much of the need could be filled using federal resources. This finance letter (FL) requests \$400,424,000 and 11.5 personnel years (PYs; 8.5 for CDHS and 3 for EMSA) to address gaps in healthcare response capacity. This includes \$400 million from the General Fund and \$424,000 from the Licensing and Certification Special Fund. These funds will build on and augment existing federal funding streams and the new General Fund resources requested in the Governor's Budget emergency preparedness initiative.

This FL addresses gaps in health care surge capacity preparedness in three areas. We identify and address the need for:

- standards and guidelines to assist the healthcare system and local governments in mounting a coordinated, integrated surge response that crosses facilities and jurisdictional boundaries;
- the need for equipment and supplies necessary to respond to a moderate event; and
- the need for equipment and supplies necessary to respond to a catastrophic event such as avian influenza.

These gaps must be addressed simultaneously. The basic supply and equipment needs are clear and the nature of the supply chain is such that filling these needs requires immediate action while the work of developing standards and guidelines for the most integrated use of those supplies and equipment is ongoing.

CDHS and EMSA request resources for the following purposes:

Addressing Surge Capacity Standards and Guidelines Gaps

- Rapidly develop State guidance and standards on the licensing flexibility, liability protection, reimbursement, standards of care, hospital surge plan templates, and standardized training curricula and exercises for surge response. \$5.2 million and 2 PYs

Addressing Moderate Event Surge Capacity Gaps

- Provide funds to develop and maintain hospital surge plans, including plans for surge staffing, infection control, equipment, systems for managing volunteers, training, and exercises. Strengthen existing emergency planning requirements to require documented hospital surge plans. \$14.5 million
- Update hospital licensing and infection control regulations for responding to emergencies and require all acute care hospitals to participate in surge planning. \$.4 million and 3.5 PYs
- Purchase two deployable mobile field hospitals to increase patient care capacity by 400 beds. \$12.3 million and 3 PYs

Addressing Catastrophic Event-Pandemic Influenza Surge Capacity Gaps

- Purchase 3.7 million courses of antiviral drugs through the federal 25 percent discount program. \$53.3 million
- Purchase ventilators to double the number available in the state. \$99.8 million
- Purchase medical supplies for alternate care sites. \$164.4 million and 3 PYs
- Purchase N-95 masks for healthcare workers. \$50.5 million

See Appendix A for a detailed cost chart.

B. BACKGROUND AND HISTORY

Attacks from a biological, chemical, or radiologic agent, a natural event, or emerging diseases such as severe acute respiratory syndrome (SARS) or pandemic influenza, will impose significant demands on California's healthcare system. During these crises, healthcare systems will have to convert quickly from their current patient capacity to "surge capacity," which is the maximum patient load a healthcare system can handle. Converting to surge capacity is a daunting task. Hospitals and other medical care providers must be prepared to receive and treat large numbers of patients, requiring sufficient staff, ventilators, oxygen, medications, vaccines, personal protective equipment, and other supplies. In addition, healthcare providers must address the special needs of vulnerable groups such as children, the elderly, and persons with disabilities. Essential hospital services such as food, water, and electricity must be continuously available, and care providers must be able to effectively communicate with public health, emergency medical services, and other regional support services.

The ability to meet surge demands depends on more than accumulating beds, supplies, equipment, and staffing. The most critical elements in preparing for the health care surge needs of a community are developing hospital and community surge plans, training for and exercising these plans, and integrating the plans regionally. Without effective surge planning, otherwise important resources may be ineffective.

The World Health Organization (WHO) and other experts warn that the threat of pandemic influenza from influenza A H5N1 is imminent and will have devastating consequences that extend beyond health and medical systems into every sector of society. John Bartlett, chief of the infectious disease unit of Johns Hopkins University School of Medicine, has said "Avian flu could be the Katrina of medicine."

Four conditions combine to cause an influenza pandemic:

- A novel influenza virus
 - H5N1
- Little or no immunity to the virus in the population
 - True of H5N1
- Demonstrated ability of the virus to cause disease
 - To date, H5N1 has a 54 percent mortality rate in humans, and
- Efficient person-to-person transmission

The only missing ingredient for pandemic influenza is efficient person-to-person transmission.

Unlike other disasters, pandemic influenza unfolds over days or weeks and public health, not fire or EMS, is the first responder. In addition, pandemic influenza is more widespread than other disasters and mutual aid will be limited and quickly exhausted. Finally, pandemic influenza is long lasting, with a duration of 18-24 months, with several waves of disease.

With multiple international ports of entry and frequent traffic from Asia, California might be one of the first states affected by an influenza pandemic. Conservative estimates indicate that at least 11,000 travelers from Southeast Asia arrive via direct flights each day in California. Given the magnitude of the illness and death that may result from a pandemic, California must increase its preparedness efforts now.

State, Local Health Department, and Hospital Roles and Responsibilities in Health Care Surge Capacity

State Roles and Responsibilities in Health Care Surge Capacity

The State is responsible for coordinating response to an event that crosses jurisdictions and/or exceeds the capacity of local agencies to respond. CDHS is the lead state agency in responding to bioterrorism and other public health emergencies. CDHS coordinates statewide public health preparedness and response; provides policy direction, technical expertise, and consultation; receives information about health threats 24/7 and directs them to the appropriate program or local health department; and provides direct response when an event exceeds local capacity. CDHS coordinates activities with OES, and with EMSA operates the Joint Emergency Operations Center (JEOC) to coordinate public health response.

CDHS has responsibility to provide standards and guidelines for health care surge to ensure that surge capacity is available in all communities and maximize the effective use of resources to meet the health care needs during emergencies. CDHS has the authority to grant hospitals flexibility in meeting licensing requirements during an emergency. Under the Patient Accommodation regulations, CDHS may grant temporary permission to house patients in space that has not been previously approved

for patient care or for some other level of care. In a declared emergency, many statutory or regulations requirements can be suspended altogether.

CDHS receives funds from the federal Health Resources and Services Administration (HRSA) for the National Bioterrorism Hospital Preparedness Program (NBHPP) to enhance the ability of healthcare systems to respond to bioterrorism and other public health emergencies. For the past three years, California has received approximately \$39 million per year from this grant. CDHS must ensure that 75 percent of the direct costs of the grant either go directly to, or directly benefit, hospitals, clinics, emergency medical services (EMS) systems, or poison control centers. CDHS allocates NBHPP funds to the county level, which in turn plans for use of these funds and collects data on progress toward meeting grant benchmarks.

Using the HRSA grant, CDHS has provided 340 of California's 442 general acute care hospitals with surge supplies and equipment including cots, personal protective equipment such as powered air purifying respirators (PAPRs) and N-95 masks, generators, medical supplies, pharmaceutical caches, communications equipment, and isolation capacity systems. Appendix B summarizes HRSA expenditures since the inception of the NBHPP in 2002.

EMSA is charged with providing leadership in developing and implementing EMS systems throughout California and setting standards for the training and scope of practice of various EMS personnel. As the lead agency responsible for coordinating California's medical response to disasters, EMSA provides medical resources to local governments in support of their disaster response.

Local Health Department Roles and Responsibilities in Health Care Surge Capacity

Under California's Standardized Emergency Management System, local entities are the first responders in an emergency. California's local health departments are the point of delivery of public health services and in emergencies provide response within their capability. Under the HRSA program, local health departments or an alternate county agency leads a planning process to measure available surge capacity and develop a spending plan for its HRSA funds, based on planning undertaken with hospitals in the community. CDHS approves each county's spending plans for their HRSA funds and collects data on their progress toward meeting grant benchmarks.

In a catastrophic event such as pandemic influenza, hospital surge capacity will be overwhelmed. Additional surge capacity will be needed at alternate care sites in every community to meet surge demand. Planning for and ensuring the availability of these alternate care sites is the responsibility of the local health department, in consultation with local hospitals. The Governor's January Budget for fiscal year 2006-07 recognized the large role of local health departments and requested \$16 million to support local preparedness for pandemic influenza, including coordination of alternate care sites.

Hospital Roles and Responsibilities in Health Care Surge Capacity

Hospital capacity and preparedness are essential components of the state's ability to effectively respond to disasters. California's acute care hospitals have ably responded to many disasters, meeting the need for health care surge in earthquakes, floods, and fires. However, responding to a major bioterrorism event, confronting a catastrophic event, or managing emergencies occurring simultaneously in different regions of the state would increase the stress on the ability of California's hospitals to respond.

The Joint Commission for the Accreditation of Health Organizations (JCAHO) requires accredited hospitals to have emergency plans in place. These requirements focus on ensuring that patients within a hospital are protected during an emergency such as a flood, fire, or power outage. Current hospital regulations related to disasters and mass casualties primarily address keeping patients and staff safe, evacuating patients, and accepting patients who present at the emergency department.

Although current regulations require hospitals to develop disaster and mass casualty plans, there is no requirement that those plans be coordinated or consistent with the disaster plans of local health departments. Nor are hospitals currently required to participate in local emergency preparedness or surge drills.

According to the Office of Statewide Health Planning and Development, in 2004, California had 86,023 acute care licensed beds, of which 72,592 were staffed. Of the staffed beds, 5,646 were at the intensive care level.

Unlike most other emergency response systems such as police, fire, and paramedics, the hospital system is largely private. In California, 84 percent of hospitals are private entities.

Surge Capacity Needed for a Moderate Event

The HRSA NBHPP has issued benchmarks for the surge capacity needed to respond to a moderate event such as a regional earthquake, fire, flood, or bioterrorist attack (Appendix C). The HRSA benchmarks, which cover a wide range of response parameters, require California's healthcare system to be prepared to transport and treat 18,405 patients requiring hospitalization within three hours of the event. This treatment and initial stabilization capacity must be in addition to the average daily staffed capacity. In response to a moderate level event, existing hospitals are the primary resource around which surge capacity is expected to be developed.

Given the size of California, the number of hospitals in the state, the decline in staffed bed capacity over recent years, and the limited baseline ability of hospitals to accommodate patient surge, the HRSA funds are insufficient to enable California to meet the HRSA benchmarks for a moderate event, much less meet the surge need for a catastrophic event such as pandemic influenza.

Surge Capacity Needed for a Catastrophic Event-Pandemic Influenza

The health care surge capacity needed to respond to a moderate event falls far short of the surge capacity needed for a catastrophic event such as pandemic influenza. In contrast to the sudden impact associated with events such as an earthquake or multiple explosions, the impact of pandemic influenza would be more widespread and of much longer duration. The Centers for Disease Control and Prevention (CDC) developed a computer model (FluSurge 2.0) that helps predict surge capacity needs during an influenza pandemic. Using the CDC model and assuming a pandemic influenza of mid-level intensity, CDHS estimates California would require the ability to treat **58,723 patients** above existing average daily staffed bed capacity. A significant proportion of patients hospitalized during a pandemic will require intensive care (39,699 in intensive care beds) and ventilators (34,028 ventilators). While health care surge capacity will be needed throughout the pandemic, the greatest need will likely occur in two to three waves, each six to eight weeks in duration, over 18 to 24 months. The peak demand would occur in week five of each wave. Due to the statewide nature of a pandemic, mutual aid would quickly be exhausted. Appendix D describes the assumptions used in this model and shows estimated hospital capacity needed during an eight-week pandemic.

Gaps in Surge Capacity

California Health Care Surge Capacity Survey

In February 2006, CDHS initiated a statewide survey of health care surge capacity among hospitals participating in the HRSA NBHPP. In collaboration with CDHS' Joint Advisory Committee on Public Health Preparedness, CDHS established a workgroup of other state agencies, local health departments, local emergency medical services agencies, the California Hospital Association, and emergency physicians that developed a survey to determine whether California meets the HRSA benchmarks for health care and to identify other surge capacity needs. While previous surveys measured surge capacity in the state, this year's effort was the first time standardized definitions developed by a workgroup of experts were used in the survey process. Using the survey data, CDHS identified gaps relative to the HRSA benchmarks for a moderate event and relative to preparedness for a catastrophic event such as pandemic influenza. Gaps discussed in this document reflect survey responses received as of April 27, 2006. See Appendix E for the assumptions used in the survey.

Gaps in Standards and Guidelines for Surge Capacity Response

Medical, hospital, and local health department leaders have indicated that state guidance on the specific licensing flexibility, liability protection, and reimbursement that will be provided to health facilities, licensed professionals, and volunteers during an emergency response effort is a necessary framework for communities' preparation for surge needs. Without information on what standards might be changed and under what conditions these changes would occur, local governments and healthcare leaders are unable to plan effectively for the specifics of their community's response. Some critical

actions needed to guide a surge response, such as flexing regulations, must be initiated by the State, but facilities need to know in advance what to anticipate. Other actions, such as setting up alternate care sites, will occur at the local or regional level, but would be facilitated by operational guidance from the State. Healthcare and public health leaders have urged CDHS to develop statewide standards and guidelines in advance to serve as a framework to ensure consistency of surge response across jurisdictional lines.

HRSA-participating hospitals have purchased some of the equipment and supplies needed for increasing bed capacity, but do not have plans in place to coordinate a surge response. Further, few hospitals have provided hospital staff with sufficient training and exercising for surge response. Hospitals have expressed a desire for surge planning templates and standardized training curricula and exercises.

- Less than half of the 340 hospitals participating in HRSA have a documented full-scale surge plan.
- Only 18 percent of hospital staff (88,508) has received any type of emergency response training such as training in Incident Command System, Statewide Emergency Management System, or the National Incident Management System.
- Hospital exercises have primarily focused on evacuating patients from the facility.

Gaps in Surge Capacity for a Moderate Event

Findings from the California Health Care Surge Capacity Survey indicate gaps in meeting the HRSA benchmarks for a moderate event in the following areas: 1) surge bed availability; 2) staffing; and 3) pharmaceutical caches for prophylaxis of healthcare workers. Although HRSA does not provide a benchmark for ventilators, the survey identified limited resources in ventilator capacity and other areas.

1. Surge Bed Availability

To meet the HRSA benchmarks for a moderate event such as a regional earthquake, fire, flood, or bioterrorist attack, California needs 18,405 surge beds within three hours of an event.

California hospitals currently report:

- 12,908 surge beds are available within three hours of an event (70 percent of benchmark)
- 17,331 surge beds are available within 24 hours of an event (94 percent of benchmark)
- Most bed shortages are in Southern California (Office of Emergency Services Mutual Aid Regions 1 and 6)
- The HRSA benchmark does not address a surge across the United States–Mexico border
- Pediatric surge beds are in short supply compared with the proportion of California's population aged 0-13. Although children aged 0-13 represent 20 percent of California's population, pediatric beds represent only 11.2 percent of available surge beds.

2. Staffing

Providing sufficient qualified medical, nursing, and ancillary personnel is likely the greatest challenge in ensuring surge capacity. During an event of any scope, surge beds need to be supported by staff, many of whom may have been affected by the event and rendered unable to respond. CDHS is currently calculating the surge capacity need for a variety of healthcare professionals, including physicians, respiratory therapists, and pharmacists.

Staffing capacity is a significant gap that poses serious challenges. CDHS and EMSA are working together to address these challenges using a comprehensive, tiered approach to recruiting, retaining, and deploying volunteers. Elements include the Emergency System for the Advanced Registration of Volunteer Health Professionals (ESAR-VHP), the Medical Reserve Corps, California Medical Assistance Teams, Disaster Medical Assistance Teams, and the California Service Corps. Appendix F describes these elements in more detail.

Note: This FL does not request resources to address surge staffing.

3. Pharmaceutical Caches for Protecting Healthcare Workers

HRSA benchmarks require each hospital to have sufficient antibiotics to provide prophylaxis against bioterrorism agents for hospital personnel and their families for three days. In the CDHS survey, hospitals report 484,958 staff. Assuming an average household size of four, staff and family would total 1,939,832. California hospitals indicate a significant gap in the ability to provide three-day courses of antibiotics to hospital staff and their families. Below is a summary of the available courses of four antibiotics that are the preventive and treatment drugs of choice for several of the highest risk bacterial bioterrorism agents and the proportion of hospital staff and their families these supplies would cover.

Amoxicillin: 88,818 (18.3% of hospital staff or 4.6% of staff and family)

Doxycycline: 156,779 (32.3% of hospital staff or 8.1% of staff and family)

Ciprofloxacin: 131,281 (27.1% of hospital staff or 6.8% of staff and family)

Levofloxacin: 33,916 (6.9% of hospital staff or 1.8% of staff and family)

Gaps in Surge Capacity for a Catastrophic Event- Pandemic Influenza

In addition to the surge capacity gaps for responding to a moderate event, CDHS has identified even larger gaps in preparedness for responding to a catastrophic event such as pandemic influenza. These gaps occur in 1) surge bed availability; 2) supplies and equipment; 3) antiviral medications; and 4) staffing.

1. Surge Bed Availability

For pandemic influenza, California needs **58,723** surge beds statewide. Much of this surge capacity would be at the intensive care level, requiring **39,699 intensive care beds** and **34,028 ventilators**.

- As noted above, California hospitals identify 17,331 surge beds available within 24 hours, comprising 3,276 intensive care beds and 14,055 general medical-surgical beds. Thus, in a pandemic hospitals currently could provide only 29.7 percent of the surge beds needed within 24 hours, 8.3 percent of the intensive care beds needed, and 73.8 percent of the general medical-surgical beds needed.
- During a pandemic, California would need 41,392 surge beds in addition to the 17,331 surge beds available within 24 hours as reported in the California Healthcare Surge Capacity Survey, including 36,423 intensive care beds and 4,969 general medical-surgical beds. The need for intensive care beds is much greater in an influenza pandemic than in other types of disasters such as an earthquake because influenza is a respiratory disease for which a significant portion of hospitalized patients require ventilators and intensive care.

California hospitals lack the surge capacity needed to respond to a catastrophic event such as pandemic influenza and will never be able to provide that capacity solely within their facilities. BCP PS-61 provides funding for local health departments to identify and develop alternate care sites such as closed hospitals, county fairgrounds, and school gymnasiums that will need to be converted to provide hospital care. However, PS-61 does not request funds to pay for medical equipment and supplies and staff for alternate care sites.

2. Supplies and Equipment

Ventilators: Influenza is a respiratory illness. Under pandemic conditions, the number of patients needing ventilator support will be much higher than in a moderate event such as a local or regional earthquake, fire, flood, or bioterrorist attack. The CDC's model for pandemic influenza response planning indicates that California will need 34,028 ventilators to meet surge demand levels (see Appendix D). The 2006 surge survey of California hospitals indicates there are 7,183 surge ventilators available statewide. This results in a gap of 26,845 ventilators.

Masks: Masks provide respiratory protection to healthcare workers. An N-95 mask is a disposable respirator mask that protects healthcare workers from transmission of infectious diseases via airborne particles. At the beginning of an influenza pandemic, it will be unknown whether the virus is transmitted by airborne particles or droplets. Thus, in order to ensure protection in the early phases of a pandemic, healthcare workers should use N-95 masks when caring for suspected or confirmed influenza patients. As the pandemic progresses, experts will evaluate the utility of and necessity of N-95 masks. N-95 masks must be stockpiled in advance of a pandemic, as once a pandemic occurs, the worldwide demand will vastly exceed supply. N-95 masks can be

easily stockpiled as they require minimal storage space and have a long shelf life. A small percentage of healthcare workers will be unable to wear N-95 masks and will require powered air purifying respirators (PAPRs).

Hospitals report existing stockpiles as follows:

- o N-95 Masks: 521,786
- o PAPRs: 6,157

Assuming that approximately one-third of the approximately 500,000 healthcare workers in California have direct patient contact and require three N-95 mask changes per day, California hospitals would need 562,5000 masks per day. Assuming N-95 masks are necessary during the first six months (180 days) of a pandemic, California hospitals would need 101.3 million masks.

3. Pharmaceuticals- Antiviral Medications

The U.S. Department of Health and Human Services (HHS) recommends that states ensure a sufficient supply of antivirals to treat 25 percent of the state population, or 9.2 million persons in California. HHS has announced a national multi-part program to purchase or subsidize the purchase of 81 million treatment courses of antivirals.

California will receive 5.28 million courses from the federal government at no state expense and an additional 3.7 million courses will be available for California purchase with a 25 percent federal subsidy. States must notify CDC by **July 1, 2006** of the number of treatment courses the state plans to purchase. If a state elects not to purchase its full allocation, HHS will redistribute those shares to participating states. The federal government has not indicated when the medications will be available or when payment is due. What is known is that governments throughout the world are placing orders for these medications and that manufacturers are placing purchasers in line based on the receipt of purchase orders.

The following chart displays HHS' allocation of antivirals for California's population:

Federal Antiviral Program	Prophylaxis	Federal Stockpile	Available to States	Total
Federal Program	6 million antiviral treatment courses will be reserved nationally for prophylactic quenching of any localized outbreaks (similar to a ring vaccination strategy);	44 million antiviral treatment courses will be stored in the Strategic National Stockpile, earmarked for states and other entities and made available to them when an influenza pandemic is judged to be imminent.	31 million treatment courses will be available for purchase by states with a 25% federal subsidy.	81 million courses nationwide
Allocated to California	Unknown	5.28 million courses	3.7 million courses	8.98 million courses

In addition to the antivirals available through the national program, SB 409 authorized General Fund (GF) expenditure in the current year of \$460,000 for Tamiflu and the Governor's January Budget proposes budget year expenditure of \$1.3 million GF for antivirals. Assuming the government price is available for these purchases, these funds will enable purchase of 93,500 courses of antivirals. These courses combined with the courses provided or subsidized by the federal government will provide California with access to approximately 9.1 million courses.

4. Staffing

As noted above for a moderate event, providing sufficient qualified medical, nursing, and ancillary personnel is likely the greatest challenge in ensuring surge capacity. During an event of any scope, surge beds need to be supported by staff, many of whom may have been affected by the event and rendered unable to respond. CDHS is currently calculating the surge capacity need for a variety of healthcare professionals, including physicians, respiratory therapists, and pharmacists.

Staffing capacity is a significant gap that poses serious challenges. CDHS and EMSA are working together to address these challenges using a comprehensive, tiered approach to recruiting, retaining, and deploying volunteers. Appendix F describes several of EMSA's approaches to improving staffing surge capacity.

C. JUSTIFICATION

Funds are requested in this FL to address the following gaps in surge capacity:

Addressing Surge Capacity Standards and Guidelines Gaps

Mounting a surge response to a moderate or catastrophic event requires staffing, equipment and supplies, and a framework of standards and guidelines on how and when to implement those resources on a coordinated, integrated basis across facilities and jurisdictions.

1. CDHS would rapidly develop State standards and guidelines on the licensing flexibility, liability protection, reimbursement, standards of care, and other issues that may affect hospitals and local health departments during a moderate or catastrophic event response. The guidance will include hospital surge plan templates, and standardized training curricula and exercises for surge response.

CDHS, in consultation with a broad array of stakeholders including EMSA; the Office of Statewide Health Planning and Development; local health departments; hospital, medical, and clinic associations; professional licensing boards; and other experts, would work with an appropriately qualified entity to develop statewide standards and guidelines for providing medical care in emergency situations – be they of a moderate or catastrophic nature. These standards and guidelines will address areas of concern such as:

- regulatory flexibility for facilities and health professionals needed during an event and rapid resumption of current regulatory standards and levels of care;
- liability protections needed for altered standards of care and use of volunteer or paid staff with expanded scopes of practice or lacking regular hospital staff privileges;
- ways to increase staffing in emergencies;
- reimbursement issues for care givers;
- standards and guidelines for alternate care sites, including required staffing and equipment;
- standards for pre-hospital and hospital austere care;
- guidelines and templates for hospital surge capacity plans;
- standardized training curricula and exercises; and
- identification of regional boundaries for hospital surge planning.

Many of these areas involve difficult and complex issues that have been widely discussed in numerous forums but never brought to resolution. Left unresolved, the issues will be addressed haphazardly in an emergency, weakening the response. The State must make a significant investment of resources now to rapidly resolve these issues and develop standards and guidelines.

CDHS proposes to contract with a consulting firm to direct and provide expert knowledge to a consultative process with CDHS and stakeholders to develop the standards and guidelines identified above. Due to the urgency of completing this task, CDHS is seeking exemption from the provisions of the Public Contract Code to allow procurement of this contractor via a sole source process.

Some of the standards and guidelines developed via this process may be incorporated into statute or regulations. Others may form the basis for emergency orders that CDHS would prepare in advance for use by the Governor during an event. Other standards and guidelines would be issued to all local health departments and hospitals for their use in planning for surge capacity. State leadership and investment are needed to provide standards and guidelines for local health departments and hospitals to ensure a statewide level of preparedness and response to surge.

The estimated one-time cost for this effort is \$5.0 million, and \$200,000 annually for one SSM III to manage the health care surge capacity program and one AGPA to work with the consultant and stakeholders on developing and implementing the standards and guidelines.

Addressing Moderate Event Surge Capacity Gaps

1. CDHS would fund, via local health departments, hospitals to develop and maintain hospital surge plans, including plans for surge staffing, infection control, equipment needs, systems for managing volunteers, training, and exercises. CDHS would require hospitals to have documented operational surge plans.

Events such as the terrorist attacks on 9/11, Hurricane Katrina, the Loma Prieta earthquake, floods in northern and central California, and wildfires in southern California, and the threat of pandemic influenza demonstrate the imperative for healthcare facilities and local health departments to work together to protect Californians. Local health departments currently receive CDC funds (and new state funds proposed in the Governor's Budget in PS-61) for preparedness and response planning. However, not all healthcare facilities participate in HRSA-funded activities, and hospitals and local health departments need to engage further in coordinated, integrated communitywide and regional surge capacity planning.

As noted above, accredited hospitals must have emergency plans. However, emergency plans have not focused on a large influx of patients and potential concurrent decrease in the number of staff that would result during a public health emergency such as a bioterrorist event or an influenza pandemic. Operational surge plans must be in place in every California hospital and hospitals need support for developing those plans.

Currently, hospital participation in surge capacity planning is voluntary and not all hospitals participate in HRSA efforts. Most hospitals conduct few emergency exercises beyond evacuation drills. Some local health officials find it challenging to engage hospitals in local health department emergency planning activities.

Given the private nature of the hospital industry, state leadership and investment are needed to encourage hospitals to participate in surge capacity planning on both a facility and a communitywide basis. While hospital leaders understand their facility's importance as a resource to the community, hospitals lack resources to fully participate in training and planning exercises.

CDHS recommends funding, via local health departments, staff at each individual hospital, with shared staff for smaller hospitals. CDHS proposes channeling the funding for these hospital staff through the local health department because local health departments have the lead responsibility for ensuring surge capacity at the community level.

CDHS proposes funding one full-time equivalent (FTE) position for hospitals with 200 or more beds and one-half FTE for hospitals with 50-199 beds. For counties with multiple small hospitals (each fewer than 50 beds), CDHS proposes funding one FTE for one hospital that would plan for all of the small hospitals in the county. In counties with a single small hospital, CDHS proposes funding one-quarter FTE. Since preparedness is an ongoing need, CDHS proposes that these positions be permanent, General Fund positions. The estimated total annual cost for the addition of staff resources for all general acute care hospitals is \$29,000,000. CDHS proposes to start this funding January 1, 2007.

Hospital Size (Licensed Beds)	Number of Hospitals	Number of Funded Positions	Cost of FTE	Total Annual Funding for Staff
200+ beds	162	1 FTE	\$100,000	\$16,200,000
50-199 beds	216	.5 FTE	\$100,000	\$10,800,000
< 50 beds and sole small hospital in county	20	.25 FTE	\$100,000	\$500,000
County groups of hospitals with <50 beds	15	1FTE	\$100,000	\$1,500,000
Total Annual Cost				\$29,000,000

Using funding from this proposal, hospitals would be responsible for developing and maintaining documented hospital surge plans including:

- Planning for a large influx of patients in a short timeframe which could continue for a long period of time;
- Specifying triggers for actions such as canceling elective surgeries, early discharges, and redirection of patients;
- Developing procedures for recalling staff and analysis of other staffing options;
- Developing procedures for managing volunteer medical and non-medical staff;
- Ensuring ample supplies and equipment and processes for purchasing additional supplies during emergency situations;
- Defining roles and responsibilities during public health emergencies, including the role of the hospital in alternate care sites; and
- Developing training plans and schedules to ensure staff are ready to respond during a public health emergency.

In addition, hospitals would be responsible for ensuring hospital staff is trained on the facility surge plan, participating in regional exercises, and participating with the local health department in communitywide surge planning.

2. CDHS would update hospital licensing and infection control regulations for responding to emergencies and require all acute care hospitals to participate in surge planning.

CDHS will review and update the regulations governing acute care hospitals and other types of healthcare facilities during major emergencies or disasters, as well as update hospital infection control regulations. The existing emergency preparedness, disaster response and infection control regulations did not envision the threats presented by bioterrorism and pandemic influenza. CDHS has proposed Budget Bill language to enable the department to promulgate these regulations on an emergency basis.

CDHS proposes 3.5 two-year limited term positions to update these regulations (one Health Facilities Evaluator Nurse or HFEN, one Staff Counsel, and one Nurse Consultant III for the Licensing and Certification Program as well as .5 Nurse Consultant III position for the Office of Regulations).

This process would include working closely with stakeholders to identify necessary changes to these regulations. The positions would be funded through the Licensing and Certification Program Special Fund, at a cost of \$424,000.

As part of the regulatory process, CDHS will identify any additional resources needed as well as the process for monitoring on-going compliance with these requirements.

CDHS has proposed Budget Trailer Bill language to complement this FL to require hospitals to participate in surge-related planning with the local health departments.

3. Purchase Mobile Field Hospitals

A moderate event such as a regional earthquake, fire, flood, or bioterrorist attack could kill, injure, or sicken tens or hundreds of thousands of Californians. Such an event would place unprecedented strain on an already fragile healthcare delivery system. California must be ready to supplement the capacity of overburdened or damaged facilities. Deployable mobile field hospitals (MFH) would serve as a State resource to supplement hospital resources in an event that exceeds or damages those resources.

EMSA proposes purchasing two MFHs that are self-contained with heating/ventilating and cooling systems, medical gases, and full generator power rendering the units operable in all climactic conditions. The MFHs would also be supplied with all requisite medical equipment and medical/stock supplies. EMSA would pre-position one MFH in Northern California and one in Southern California and could deploy them within the first few days of an event, long before military hospitals or other major federal resources would be available.

Each MFH will have a bed capacity of 200 and modules for:

- Patient holding areas, wards, nursing stations, central medical service areas, and administration,
- Advanced trauma life support, surgical operating rooms, intensive care, and isolation
- Ancillary medical services including laboratory, x-ray, and pharmacy services.

During an event, EMSA would set up and run the MFHs using a combination of state personnel, contracted logistic support staff, and organized disaster medical volunteers. EMSA would develop training programs to prepare staff to provide medical services within the facilities. EMSA would fully coordinate the MFH program with the Governor's Office of Emergency Services, California National Guard, and CDHS.

EMSA requests \$12,316,000 to purchase and maintain two MFHs and hire two Health Program Specialist I positions and one Health Program Manager II position to support the MFHs and provide training, exercises, and drills for their deployment.

Addressing Catastrophic Event-Pandemic Influenza Surge Capacity Gaps

The advance purchase of supplies and equipment is vital for pandemic influenza preparedness. Due to the expected nationwide impact and limited ability to purchase supplies and pharmaceuticals on a just-in-time basis, it is prudent to stockpile resources as close as possible to hospitals and alternate care sites. Local health departments are encouraged to work within their OES mutual aid regions to establish regional stockpiles.

1. Purchase 3.7 million courses of antiviral medications through the federal 25 percent discount program.

CDHS recommends that the State commit to purchasing 3,723,339 subsidized courses of antivirals using General Funds. CDHS is prohibited from using federal bioterrorism funds to purchase antivirals.

Antivirals Purchase

	Number of Courses	Cost/Course	Total Cost
Previously purchased cache of Tamiflu	616	\$61.28	\$37,748
SB 409 cache of Tamiflu	24,455	\$18.81	\$460,000
Governor's Budget	68,062	\$19.10*	\$1,300,000
HHS (with 25% subsidy)	3,723,339	\$14.33*	\$53,348,000
HHS (SNS supplied)	5,284,740	N/A	N/A
Total	9,101,212		\$55,145,748

* Weighted cost per course based on a 90-10 percent split of Tamiflu and Relenza respectively.

Of the antivirals to be purchased, 90 percent will be Tamiflu and 10 percent will be Relenza. These percentages are based on the recommendation of a group of national experts that CDHS convened to evaluate options. The federal government is unable to specify when the product would be available or when payment will be due.

CDHS will use existing federal bioterrorism preparedness funds to rent warehouse space in a single location to store the antivirals. A single storage site will provide CDHS with the greatest control and flexibility in distributing the antivirals to where they are needed during a pandemic.

2. Purchase ventilators.

Under pandemic conditions, the number of patients needing ventilator support will far outstrip capacity.

- Need: 34,028 ventilators

- Currently Available: 7,183 surge ventilators
- Gap: 26,845 additional ventilators needed

Although pandemic modeling indicates the need for 34,028 ventilators (see Appendix D), currently available staff and facilities could not support their operation. CDHS proposes to double the number of ventilators now available through the purchase of 7,183 ventilators at a cost of \$10,000 per ventilator for a total cost with tax, shipping, and maintenance of \$99,784,000.

The vendor will store, rotate, and maintain the ventilators ("vendor-management") at sites in Northern and Southern California.

3. Purchase supplies for alternate care sites.

CDHS proposes to help local health departments develop communitywide and regional pandemic-level surge capacity by funding purchase of supplies for alternate care sites.

Hospitals are integral to efforts to increase surge capacity, however hospitals cannot meet pandemic influenza surge targets alone. Local health departments have lead responsibility for working with hospitals and healthcare systems to develop the communitywide and regional surge capacity needed for a pandemic. This responsibility includes identifying alternate care sites and determining the use of these sites. Closed hospitals, military installations, clinics, churches, schools, hotels, or other facilities may all serve as appropriate sites.

The supplies needed to operate alternate care sites depend on the types of beds to be set up at each site. For general medical-surgical beds, a cache of supplies is estimated to average \$400 per patient. For intensive care beds, the cost of supplies rises to \$4,000 per patient. There would be additional costs for staffing the sites.

ALTERNATE CARE SITES COST ESTIMATES

Supplies	Quantity	Unit Cost	Total Supply Cost	Sales Tax		Shipping		Total Cost
				Rate	Cost	Rate	Cost	
ICU Beds	36,423	\$4,000	\$145,692,000	7.75%	\$11,291,130	3%	\$4,370,760	\$161,353,890
Med-Surg Beds	4,969	\$400	\$1,987,600	7.75%	\$154,039	3%	\$59,628	\$2,201,267
Warehouse Storage, 3,000 sq.ft. @ \$1.00 per region per month	6 regions	\$36,000						\$216,000
Staffing								\$596,000
Total			\$147,679,600		\$11,445,169		\$4,430,388	\$164,367,157

Additionally, 3,000 square feet of regional warehouse storage will be needed at a cost of \$1.00 per square foot per region per month, for a total storage cost of \$216,000 per year. CDHS proposes the addition of a half-time position in each mutual aid region to manage storage of supplies and equipment. At an estimated cost of \$50,000 for each of the six OES mutual aid regions, the total annual cost is \$300,000. CDHS proposes to hire these staff in August 2006, for a cost of \$275,000. CDHS requests one SSM II Manager to direct the activities of the Surge Unit and two AGPAs for purchasing and contracts. Total cost is \$164,367,000.

4. Purchase N-95 Masks

Masks provide respiratory protection to healthcare workers. An N-95 mask is a disposable respirator mask that protects healthcare workers from transmission of infectious diseases via airborne particles. At the beginning of an influenza pandemic, it will be unknown whether the virus is transmitted by airborne particles or droplets. Thus, in order to ensure protection in the early phases of a pandemic, healthcare workers should use N-95 masks when caring for suspected or confirmed influenza patients. As the pandemic progresses, experts will evaluate the utility of and necessity of N-95 masks. N-95 masks must be stockpiled in advance of a pandemic, as once a pandemic occurs, the worldwide demand will vastly exceed supply. N-95 masks can be easily stockpiled as they require minimal storage space and have a long shelf life. A small percentage of healthcare workers will be unable to wear N-95 masks and will require powered air purifying respirators (PAPRs).

Hospitals report existing stockpiles as follows:

- o N-95 Masks: 521,786
- o PAPRs: 6,157

Assuming that 37.5 percent of the reported 500,000 healthcare workers have direct patient contact and assuming 3 mask changes per day, 562,500 masks will be required on a daily basis. Assuming the stockpile would be needed for the first 6 months (180 days), 101,250,000 masks would be needed at \$0.45 per mask (\$45,562,500), sales tax at 7.75 percent (\$3,531,094), and shipping at 3 percent (\$1,366,875), for a total of \$50,461,000.

D. STATE LEVEL CONSIDERATIONS

CDHS is responsible for ensuring that California is prepared to respond to a public health emergency. In order to assure that California can effectively respond to the increased need for patient care capacity (surge), CDHS must work with California local health departments and hospitals. An effective response plan must involve preparedness at the state, local, and facility level.

E. FACILITY/CAPITAL OUTLAY CONSIDERATION

Not applicable.

F. ANALYSIS OF ALL FEASIBLE ALTERNATIVES

1. Address California's surge capacity needs by funding preparedness activities for both moderate events and pandemic influenza.

PRO:

- California will be better prepared to respond to any public health emergency.
- Having statewide standards and guidelines on surge capacity will strengthen the consistency of California's preparedness.
- Responds to requests from hospitals and local health departments for state direction in meeting health care surge capacity.
- Hospitals will develop documented surge plans that will be tested through drills and exercises.
- California will have the needed structure and materiel to respond to both moderate events and catastrophic events such as pandemic influenza.

CON:

- Significant general fund costs.
- The anticipated surge needs are based on benchmarks and projections; until an event occurs, it is not possible to know exactly what is needed.
- This proposal will not meet the full projected needs for ventilators.
- Although alternate care sites would be equipped, this proposal does not cover the cost of operating the alternate care sites.
- There is a potential for this investment to be wasted due to the limited shelf life of pharmaceuticals and medical supplies if they are not needed in the near future.

2. Address only the surge capacity needs identified for preparing for a moderate event.

PRO:

- California will be better prepared to respond to moderate events such as a regional earthquake, fire, flood, or bioterrorist attack.
- Having statewide standards and guidelines on surge capacity will strengthen the consistency of California's preparedness.
- General fund costs will be reduced.

CON:

- California will be unprepared to respond to pandemic influenza or other statewide catastrophic event.

3. Develop surge capacity incrementally through the ongoing use of HRSA funds.

PRO:

- No impact to the state General Fund.

CON:

- Hospital, local health departments, and communities will move slowly to write surge plans, participate in training, and conduct meaningful drills and exercises.
- California will be unprepared to respond to health care surge needs at either a moderate level or to an influenza pandemic.

H. TIMETABLE

- July 1, 2006: Hire a consulting firm to develop statewide standards, guidelines, and templates for healthcare surge capacity, working with stakeholders including hospitals and local health departments.
- July 1, 2006: Notify CDC of California's intent to purchase antivirals through the federal cost sharing program.
- July 1, 2006: Begin procurement process for MFHs, ventilators, masks, and alternate care sites as well as storage facilities to maintain them.
- January 1, 1007: Fund local health departments to provide staff to hospitals to develop, implement, maintain, and exercise surge plans.

I. RECOMMENDATION

Alternative 1 would best prepare California to respond to patient surge, under moderate as well as catastrophic public health emergencies, by establishing statewide standards and guidelines, supplying resources to hospitals for developing surge plans, providing for the update of Title 22 hospital emergency regulations, and providing needed supplies, equipment, and pharmaceuticals critical in a pandemic influenza.

HEALTH CARE SURGE CAPACITY

Appendix A

		Health Services			EMSA	
Goal	Recommendation	General Fund		Special Fund	General Fund	
		BY	BY + 1	2 Yr LT	BY	BY + 1
Rapidly Develop State Guidance and Standards	Rapid development of State guidance on the licensing flexibility, liability protection, and reimbursement that will be provided to health facilities, licensed professionals, and volunteers during an emergency response effort.					
	Contract for consultant	\$5,000,000				
	1 SSM III Overall Surge Management, 1 AGPA for rapid development of State guidance	\$224,000	\$218,000			
Subtotal State Guidance		\$5,224,000	\$218,000	\$0	\$0	\$0
Develop and Maintain Hospital Surge Plans	Assist local health departments in developing surge capacity by providing funds to increase hospital staffing dedicated to surge planning.					
	Add a full time position for hospitals with 200 or more licensed beds and a half time position for hospitals with 50-199 licensed beds. Hospitals with fewer than 50 beds would be incorporated into planning of other hospitals within the county. At a cost of \$100,000 for each full-time position and \$50,000 for each half-time position, the cost for 162 full-time positions would be \$16,200,000 and 216 half-time positions would be \$10,800,000. In addition, 64 hospitals have fewer than 50 beds fall into 35 counties, each county with more than 1 small hospital would receive a full-time position 15 @ \$100,000 or 1,500,000 and 20 other counties would receive one-fourth staff or 20 x \$25,000 for a total of \$500,000. TOTAL COST would be \$29,000,000. Propose funding for 6 months in budget year for a cost of \$14,500,000.	\$14,500,000	\$29,000,000			
Subtotal Hospital Surge Plans		\$14,500,000	\$29,000,000	\$0	\$0	\$0

		Health Services				EMSA	
Goal	Recommendation	General Fund		Special Fund	General Fund		
		BY	BY + 1	2 Yr LT	BY	BY + 1	
Update Hospital Licensing Regulations	Update hospital licensing and infection control regulations to address preparedness for major emergencies or disasters. Licensing and Certification would require three Positions (one Health Facilities Evaluator Nurse, one AGPA and one Nurse consultant III) for two years; the Office of Regulations would require 1/2 position (Nurse Consultant III) for this period.						
	1 - Health Facilities Evaluator Nurse, 1.5 Nurse Consultant III, 1 Staff Counsel			\$424,000			
Subtotal Update Regulations		\$0	\$0	\$424,000	\$0	\$0	
Purchase Deployable Mobile Field Hospitals	Purchase 2 deployable mobile field hospitals at a cost of \$12,316,000 to increase patient care capacity by 400. Mobile field hospitals provide needed flexibility since they can be deployed to the site of an incident. Mobile field hospitals are configurable based on need, e.g., they can serve as isolation facilities, surgical hospitals, triage centers, and ICU units						
	Purchase Price - \$3,335,00 per hospital				\$6,670,000		
	Mobile Field Hospital Maintenance, \$15,000 per MFH per year				\$30,000	\$30,000	
	Warehouse rent (\$150,000 per year * 2 MFH)				\$300,000	\$300,000	
	Training Exercises (Quarterly) On-Call Set-Up and Support Workers (\$50,000 per team * 2 MFH)				\$100,000	\$100,000	
	Replacement of Expired Pharmaceuticals (\$8,000 per year * 2 MFH)				\$16,000	\$16,000	
	Forklift (\$20,000 per forklift * 2 MFH)				\$40,000		
	Fiat Bed Truck (\$50,000 per truck * 4 trucks per MFH * 2 MFH				\$400,000		
	Ventilators (\$10,000 per ventilator * 400 beds * 60%) + Tax @ 7.75% + Freight/Shipping @ 3% + 5 Year maintenance agreement @ \$2800				\$3,265,000		
	HEPA Filter (\$3,500 per filter * 10 (1 for every 20 beds) *2 MFH				\$700,000		
	24 Hour On-Call Response Teams (\$200,000 per team * 2 MFH)				\$400,000	\$400,000	
	EMSA Staff Costs (1 HPM II and 2 HPS I)				\$395,000	\$395,000	
Subtotal Mobile Hospitals		\$0	\$0	\$0	\$12,316,000	\$1,241,000	
Subtotal Mobile Disaster Preparedness		\$14,500,000	\$29,000,000	\$424,000	\$123,16,000	\$1,241,000	

Goal	Recommendation	Health Services			EMSA	
		General Fund		Special Fund	General Fund	
		BY	BY + 1	2 Yr LT	BY	BY + 1
Purchase Courses of Antiviral Drugs	Governor should commit to the purchase of 3,723,339 courses of antivirals; awaiting resolution of price negotiations and payment date. General funds would be used for the purchase since federal bioterrorism funds cannot be used to purchase antivirals.					
	90% of purchase will be Tamiflu at a cost of \$18.81 or \$14.11 with the 25% federal subsidy. 3,351,005 courses at \$14.11 for a total of \$47,282,682	\$47,283,000				
	10% of courses will be Relenza at a cost per course of \$21.72 or \$16.29 with the 25% federal subsidy. 372,334 courses at \$16.29 for a total of \$6,065,321.	\$6,065,000				
Subtotal Drug Purchase		\$53,348,000	\$0	\$0	\$0	\$0
Purchase Ventilators	Ventilators: Although pandemic modeling indicates the need for 34,028 ventilators, staff and facilities could not support their operation. Doubling the number of ventilators now available through the purchase of 7,183 ventilators at a cost of \$10,000 per ventilator would cost \$71,830,000. Tax at 7.75% (\$5,566,825) and freight/shipping at 3% (\$2,154,900) 5-year maintenance at \$2,800 (\$20,112,400). Storage with vendor managed inventory or LHD regional inventory estimated at \$300,000--vendor houses and maintains ventilator in 1 Northern and 1 Southern Region-distribution plan in place.					
	Purchase price of 7,183 @ \$10,000 per ventilator	\$71,830,000				
	Tax @ 7.75%	\$5,387,000				
	Freight/shipping @ 3%	\$2,155,000				
	5 year maintenance @ \$2800 per ventilator	\$20,112,000				
	Vendor managed inventory- 2 regional sites	\$300,000	\$300,000			
Subtotal Ventilators		\$99,784,000	\$300,000	\$0	\$0	\$0

Goal	Recommendation	Health Services			EMSA	
		General Fund		Special Fund	General Fund	
		BY	BY + 1	2 Yr LT	BY	BY + 1
Purchase Medical Supplies for Alternate Care Sites	Assist local health departments in the development of pandemic-level surge capacity by providing state dollars for purchase of supplies and equipment needed for alternate care sites. Estimated cost for additional 36,423 monitored beds @ \$4000 per patient and 4,969 general medical-surgical beds @ \$400 per patient. Although full ICU monitoring equipment would run \$15-20,000 per bed, there would not be staff to run this equipment, \$4000 per bed allows the purchase of pulse oximetry and ECG and blood pressure bed side monitors) \$145,692,000 for ICU supplies and \$1,987,600 for general medical-surgical beds for a total cost of \$147,679,600. See attached list of supplies and equipment. Tax at 7.75% and shipping/freight @ 3%. Costs do not include operation or staffing during an event.					
	Purchase Price	\$147,680,000				
	Tax at 7.75%	\$11,445,000				
	Freight/Shipping at 3%	\$4,430,000				
	6 half- time positions for maintaining local caches, estimated at \$50,000 each.	\$275,000	\$300,000			
	6 regional warehouse storage rental fees at an estimated need of 3000 square feet at \$1.00 per square foot per region per month. Total = (3000 x 6 X 12)	\$216,000	\$216,000			
	1 SSM II Manager, 2 AGPAs Surge Unit and HRSA Unit	\$321,000	\$299,000			
Subtotal Medical Supplies		\$164,367,000	\$815,000	\$0	\$0	\$0
Purchase Masks for Healthcare Workers	Masks: Assuming that 37.5% of the reported 500,000 healthcare workers have direct patient contact and assuming 3 mask changes per day, 562,500 masks will be required on a daily basis. Assuming the stockpile would be needed for the first 6 months (180 days), 101,250 million masks would be needed @ \$0.45 per mask for a total of \$45,562,500. Tax at 7.75% (\$3,531,094) and shipping at 3% (\$1,366,875). Total cost equals \$50,460,469.					
	Purchase Price 101,250 million masks at \$0.45 each	\$45,563,000				
	Tax at 7.75%	\$3,531,000				

		Health Services			EMSA	
Goal	Recommendation	General Fund		Special Fund	General Fund	
		BY	BY + 1	2 Yr LT	BY	BY + 1
	Freight/Shipping at 3%	\$1,367,000				
Subtotal Purchase of Masks		\$50,461,000	\$0	\$0	\$0	\$0
Subtotal Catastrophic Event		\$367,960,000	\$1,115,000	\$0	\$0	\$0
TOTAL BCP Costs		\$387,684,000	\$30,333,000	\$424,000	\$12,316,000	\$1,241,000

Total General Fund

\$400,000,000

California Department of Health Services
Emergency Preparedness Office

Federal Bioterrorism Available Funds and Expenditures by Grant Year
HRSA Bioterrorism Preparedness Grant Project
As of April 30, 2006

(Dollars are reported in 000's)

Description	Year 1 (9/1/02-8/31/03)	Year 2 (9/1/03-8/31/04)	Year 3 (9/1/04-8/31/05)	Year 4 (9/1/05-8/31/06)	Total
Award Amount	\$9,963	\$39,736	\$38,974	\$39,203	\$127,876
Less Carryover Prior Years	-\$962				-\$962
Total Grant Authority	\$9,001	\$39,736	\$38,974	\$39,203	\$126,914
Expenditures:					
State Operations					
Expenditures*	\$9,001	\$9,439	\$4,020	\$1,759	\$24,219
Projected Operating Costs Year 4 (April-August)				\$1,208	\$1,208
Obligations	\$0	\$2,164	\$4,468	\$8,287	\$14,919
Pending Contracts Year 4				\$5,975	\$5,975
Total State Operations	\$9,001	\$11,603	\$8,488	\$17,229	\$46,321
Local Assistance					
Expenditures	\$0	\$27,432	\$10,533	\$1,463	\$39,428
Obligations	\$0	\$701	\$19,953	\$20,511	\$41,165
Total Local Assistance	\$0	\$28,133	\$30,486	\$21,974	\$80,593
Both State Operations & Local Assistance					
Total Expenditures	\$9,001	\$36,871	\$14,553	\$3,222	\$63,647
Total Obligations	\$0	\$2,865	\$24,421	\$28,798	\$56,084
Projected Operating Costs and Pending Contracts				\$7,183	\$7,183
Grand Total	\$9,001	\$39,736	\$38,974	\$39,203	\$126,914
Fund Balance					

* State operations expenditures include funds spent on behalf of local entities.

Notes:

Pending Obligations for Year 4 (\$5,975,000) include the following:

1. HRSA Year 4 budgeted items: CAHAN hardware upgrades and usability upgrades (\$550,000); 24/7 Health Operations Center (\$650,000); Statewide Training (\$900,000); Statewide Exercises (\$700,000); Perinatal Transport (\$150,000); Electronic Lab Reporting (\$550,000); Laboratory Information Management System (\$200,000); Regional Special Projects (\$1,400,000); and Behavioral Health Provider Training through Department of Mental Health (\$325,000).

2. HRSA funds have been redirected to currently unfunded activities to address gaps in health care surge including establishment of a Border Surge Taskforce (\$150,000); planning ongoing surge capacity data collection (\$200,000); and working with medical licensing boards, associations, and medical schools to develop surge staffing plans (\$200,000).

California Department of Health Services
Emergency Preparedness Office

**HRSA State Operations and Local Assistance
Expenditures and Obligations by Priority Area**

Year 1-WP 02 thru Year 4-WP 05

As of April 30, 2006

(Dollars are reported in 000'S)

Year/WP Object							Total
Year 1 WP 02							
Expenditures	\$855	\$7,068	\$0	\$300	\$778	\$0	\$9,001
Obligations	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Obligations	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Year 1	\$855	\$7,068	\$0	\$300	\$778	\$0	\$9,001
Year 2 WP 03							
Expenditures	\$51	\$2,938	\$3,320	\$34	\$3,096	\$0	\$9,439
Obligations	\$0	\$499	\$1,499	\$166	\$0	\$0	\$2,164
Expenditures	\$0	\$26,068	\$0	\$0	\$589	\$776	\$27,432
Obligations	\$0	\$701	\$0	\$0	\$0	\$0	\$701
Total Year 2	\$51	\$30,206	\$4,820	\$200	\$3,684	\$776	\$39,736
Year 3 WP 04							
Expenditures	\$747	\$1,349	\$607	\$443	\$755	\$119	\$4,020
Obligations	\$0	\$1,251	\$2,913	\$215	\$86	\$3	\$4,469
Expenditures	\$0	\$9,796	\$0	\$0	\$582	\$155	\$10,533
Obligations	\$0	\$19,833	\$0	\$0	\$101	\$19	\$19,953
Total Year 3	\$747	\$32,230	\$3,520	\$658	\$1,525	\$296	\$38,975

Year 4 WP 05	1	2	3	4	5	6	
State Ops*	\$637	\$3,069	\$2,127	\$2,794	\$1,324	\$96	\$17,229
Expenditures	\$625	\$314	\$20	\$534	\$217	\$50	\$1,759
Obligations	\$12	\$2,755	\$2,107	\$2,260	\$1,107	\$46	\$8,287
Projected Operating Costs and Pending Contracts*							\$7,183
Local Assistance	\$0	\$17,947	\$0	\$0	\$2,388	\$1,639	\$21,974
Expenditures	\$0	\$990	\$0	\$0	\$334	\$139	\$1,463
Obligations	\$0	\$16,957	\$0	\$0	\$2,054	\$1,500	\$20,511
Total Year 4	\$637	\$21,015	\$2,127	\$2,794	\$3,712	\$1,735	\$39,203

**Projected expenditures and pending contracts are not broken out by priority area.*

TOTALS	1	2	3	4	5	6	
Total State Ops	\$2,290	\$16,174	\$10,467	\$3,952	\$6,039	\$218	\$46,322
Expenditures	\$2,278	\$11,669	\$3,947	\$1,310	\$4,846	\$169	\$24,220
Obligations	\$12	\$4,505	\$6,520	\$2,641	\$1,193	\$49	\$14,920
Projected Operating Costs and Pending Contracts*							\$7,183
Total Local Assis.	\$0	\$74,345	\$0	\$0	\$3,660	\$2,589	\$80,594
Expenditures	\$0	\$36,854	\$0	\$0	\$1,505	\$1,069	\$39,429
Obligations	\$0	\$37,490	\$0	\$0	\$2,155	\$1,519	\$41,165
Grand Total	\$2,290	\$90,519	\$10,467	\$3,952	\$9,700	\$2,806	\$126,916

Priority Areas	
1	Financial Accountability/Administration
2	Surge Capacity
3	Emergency Medical Services
4	Linkages to Public Health
5	Education and Preparedness Training
6	Preparedness Exercises

Appendix C
Health Resources and Services Administration
National Hospital Bioterrorism Preparedness Program
Critical Benchmarks

Priority Area 1: Financial Accountability/Administration

Critical Benchmark 1: Financial Accountability

Develop and maintain a financial accounting system capable of tracking expenditures by critical benchmark and by funds allocated to hospitals and other health care entities.

Priority Area 2: Surge Capacity

Critical Benchmark 2-1: Surge Bed Capacity

Establish systems that, at a minimum, can provide triage treatment and initial stabilization, above the current daily staffed bed capacity, for the following classes of adult and pediatric patients requiring hospitalization within three hours in the wake of a terrorism incident or other public health emergency:

- a. 500 cases per million population for patients with symptoms of acute infectious disease – especially smallpox, anthrax, plague, tularemia and influenza;
- b. 50 cases per million population for patients with symptoms of acute botulinum intoxication or other acute chemical poisoning – especially that resulting from nerve agent exposure;
- c. 50 cases per million population for patients suffering burn or trauma; and
- d. 50 cases per million population for patients manifesting the symptoms of radiation-induced injury – especially bone marrow suppression.

Critical Benchmark 2-2: Isolation Capacity

Ensure that all participating hospitals have the capacity to maintain, in negative pressure isolation, at least one suspected case of a highly infectious disease (e.g., smallpox, pneumonic plague, SARS, influenza and hemorrhagic fevers) or febrile patient with a suspect rash or other symptoms of concern who might be developing a highly communicable disease. Awardees must identify at least one regional healthcare facility, in each awardee defined region, that is able to support the initial evaluation and treatment of at least 10 adult and pediatric patients at a time in negative pressure isolation within 3 hours post-event.

Critical Benchmark 2-3: Surge Staffing

HRSA now includes this within Benchmark 2-4.

Critical Benchmark 2-4: Emergency System for the Registration of Volunteer Healthcare Professionals (ESAR-VHP)

Appendix C
Health Resources and Services Administration
National Hospital Bioterrorism Preparedness Program
Critical Benchmarks

Develop a system that allows for the advance registration and credentialing of clinicians needed to augment a hospital or other medical facility to meet patient/victim care and increased surge capacity needs.

Critical Benchmark 2-5: Pharmaceutical Caches

Establish a regional system that insures a sufficient supply of pharmaceuticals to provide prophylaxis for 3 days to hospital personnel (medical and ancillary staff), hospital based emergency first responders and their families -- in the wake of a terrorist-induced outbreak of anthrax or other disease for which such countermeasures are appropriate.

Critical Benchmark 2-6: Personal Protective Equipment

Each awardee must ensure adequate personal protective equipment (PPE) per awardee defined region, to protect current and additional health care personnel, during an incident. This benchmark is tied directly to the number of health care personnel the awardee must provide to support surge capacity for beds.

Critical Benchmark 2-7: Decontamination

Insure that adequate portable or fixed decontamination systems exist for managing adult & pediatric patients as well as health care personnel, who have been exposed during a chemical, biological, radiological, or explosive incident in accordance with the numbers associated with Critical Benchmark # 2-1 (Surge Bed Capacity).

Critical Benchmark 2-8: Behavioral Health

Enhance the networking capacity and training of health care professionals to be able to recognize, treat and coordinate care related to the behavioral health consequences of bioterrorism or other public health emergencies.

Benchmark 2-9: Trauma and Burn

HRSA now includes this within Benchmark 2-1.

Critical Benchmark 2-10: Communications and Information Technology

Establish a secure and redundant communications system that insures connectivity during a terrorist incident or other public health emergency between health care facilities and state and local health departments, emergency medical services, emergency management agencies, public safety agencies, neighboring jurisdictions and federal public health officials.

Appendix C
Health Resources and Services Administration
National Hospital Bioterrorism Preparedness Program
Critical Benchmarks

Priority Area 3: Emergency Medical Services

Critical Benchmark 3: Emergency Medical Services

Enhance the statewide mutual aid plan to deploy EMS units in jurisdictions/regions they do not normally cover, in response to a mass casualty incident due to terrorism. This plan must ensure the capability of providing EMS triage, transportation and patient tracking for at least 500 adult and pediatric patients per million population within 3 hours post-event.

Priority Area 4: Linkages to Public Health

Critical Benchmark 4-1: Hospital Laboratories

Implement a hospital laboratory program that is coordinated with currently funded CDC laboratory capacity efforts, and which provides rapid and effective hospital laboratory services in response to terrorism and other public health emergencies.

Critical Benchmark 4-2: Surveillance

Enhance the capability of rural and urban hospitals, clinics, emergency medical services systems and poison control centers to report syndromic and diagnostic data that is suggestive of terrorism or other highly infectious disease to their associated local and state health departments on a 24-hour-a-day, 7-day-a-week basis.

Priority Area 5: Education and Preparedness Training

Critical Benchmark 5: Education and Preparedness Training

Awardees will utilize competency-based education and training programs for adult and pediatric pre-hospital, hospital, and outpatient health care personnel responding to a terrorist incident or other public health emergency.

Priority Area 6: Preparedness Exercises

Critical Benchmark 6: Exercises

As part of the state or jurisdiction's bioterrorism hospital preparedness plan, functional exercises will be conducted during FY 2005 and should be based on the Awardee HVA. These drills should involve several state agencies and implement the Incident Command Structure (ICS). To the extent possible, members of the public should be invited to participate. These exercises/drills should encompass, if possible, at least one biological agent. The inclusion of scenarios involving radiological and chemical agents as well as explosives may be included as part of the exercises/drills.

Appendix D

HEALTH CARE SURGE CAPACITY NEEDED IN AN INFLUENZA PANDEMIC

FluSurge

FluSurge 2.0 software available on the Centers for Disease Control and Prevention (CDC) website was used to determine the total number of staffed non-ICU beds, critical care beds (both ICU and monitored), and ventilators needed during a mid-level influenza pandemic. Such an epidemic would be halfway between the intensity of the severe 1918 influenza pandemic and the mild 1968 influenza pandemic. The FluSurge projections assume an 8-week attack duration, a 25% attack rate (25% of population affected), a 4.4% admission rate for affected persons to hospitals and a 26.6% mortality rate for patients admitted to hospitals. In this model 35% of patients are assumed to be admitted to critical care beds (ICU or monitored beds) and 30% of patients are assumed to need ventilators. California Department of Finance (DOF) population estimates for 2006 were used for age-group inputs. The number of beds and ventilators utilized (see below) are based responses to the 2006 California Healthcare Surge Capacity Survey conducted by the Department of Health Services.

FluSurge uses the following **default** assumptions (which can be altered by the user).

1. Average length of non-ICU hospital stay for influenza-related illness is 5 days.
2. Average length of ICU stay for influenza-related illness is 10 days.
3. Average length of ventilator usage for influenza-related illness is 10 days.
4. Average proportion of admitted influenza patients will need ICU care is 15%.
5. Average proportion of admitted influenza patients will need ventilators is 7.5%.
6. Average proportion of influenza deaths assumed to be hospitalized is 70%.
7. Daily percentage increase in cases arriving compared to previous day is 3%.

FluSurge Results for California and Assumptions Used

FluSurge 2.0 was used to calculate the estimated staffed bed capacity needed, ICU capacity needed, ventilator usage, and deaths from an influenza pandemic (**Table 1**), assuming an 8 week pandemic wave with a 25% attack rate. The following default assumptions and input values were changed as explained below.

- Assumption 4 (The average proportion of admitted influenza patients who will need ICU care) was increased from 15% to **35%**. This was done because the projected rate of in-hospital mortality (26.6%) would require that at least 35% of hospitalized patients be treated in an ICU.
- Assumption 5 (The average proportion of admitted influenza patients who need ventilators) was increased from 7.5% to **30%**. As with Assumption 5, this was done because the projected rate of in-hospital mortality (26.6%) would require that at least 30% of hospitalized patients be treated with a ventilator.
- FluSurge uses age and risk-factor specific rates for hospitalization and deaths based on a mild 1968-type pandemic. In order to estimate the impact of a future pandemic of mid-level to severe impact, the age and risk-factor specific rates for hospitalization and deaths from the 1968 and 1918 pandemics were averaged and the resulting estimates were used as inputs into the FluSurge Model.

Appendix D

HEALTH CARE SURGE CAPACITY NEEDED IN AN INFLUENZA PANDEMIC

However, it is not possible at this time to estimate the severity of an avian influenza pandemic, which could be even greater than the 1918 pandemic.

- The following estimates of hospital capacity in California were used as inputs:
 - Total number Staffed non-ICU surge beds: **14,055**
 - Total number Staffed ICU surge beds (includes monitored): **3,276**
 - Total number of surge ventilators (includes transport) available: **7,183**
- California Department of Finance (DOF) population estimates for 2006 were used for age-group inputs.

Estimated Hospital Capacity for an 8 Week Pandemic with a 25% Attack Rate

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9	10
Hospital Admission	Weekly admissions	24,364	40,607	60,910	77,152	77,152	60,910	40,607	24,364		
	Peak admissions/day				12,023	12,023					
Hospital Capacity	# of influenza patients in hospital	17,909	29,849	44,773	56,713	58,723	51,616	39,584	25,967		
	% of hospital surge capacity needed	127%	212%	319%	404%	418%	367%	282%	185%		
ICU/Monitored Capacity	# of influenza patients in ICU	8,527	18,084	27,771	36,682	39,699	38,619	30,687	21,189		
	% of surge capacity needed	260%	552%	848%	1120%	1212%	1179%	937%	647%		
Ventilator Capacity	# of influenza patients on ventilators	7,309	15,500	23,804	31,442	34,028	33,102	26,303	18,162		
	% usage of ventilator	102%	216%	331%	438%	474%	461%	366%	253%		
Deaths	# of deaths from influenza			6,493	10,821	16,232	20,560	20,560	16,232	10,821	6,493
	# of influenza deaths in hospital			4,545	7,575	11,362	14,392	14,392	11,362	7,575	4,545

Discussion

Projections of hospital capacity needed to treat influenza patients would exceed the state's hospital surge bed capacity in every week of an 8-week pandemic. During Week 5 the surge bed capacity would be exceeded by 418%. The picture is even more challenging with regard to treatment of the most critically ill. In Week 5 the total number of critical care beds needed would exceed the combined number of ICU and monitored beds available for surge purposes by 1212%. In Week 5 the need for ventilators would exceed the number of available surge ventilators by 474%. This includes the use of 5,045 transport ventilators that may not be useable for all patients (such as children) and may have limitations for continued use throughout a pandemic. While the magnitude of the shortfall in needed hospital capacity could be significantly decreased in a pandemic if the assumptions were modified to assume a lower attack rate or lower disease severity (requiring fewer hospital admissions), hospital capacity is likely to be significantly exceeded in even very mild scenarios.

Appendix E
CALIFORNIA HEALTHCARE SURGE CAPACITY SURVEY
ASSUMPTIONS FOR HOSPITALS

General Survey Assumptions:

The Surge Capacity Data Workgroup established a common set of assumptions to facilitate consistent reporting statewide. The sole purpose of these assumptions is to create a common baseline for reporting.

1. Measure resources only in your hospital.
2. Assume HRSA Year 2 and Year 3 purchases have been made.
3. Assume a Gubernatorial Proclamation of Emergency is in place and that required standards for patient care have been modified.
4. Assume mutual aid from outside the Operational Area will not be available for at least 72 hours.
5. Assume your facility will need to self-sustain care within the facility for a minimum of 72 hours without re-supply.
6. Surge capacity being reported must exist above average daily occupancy (census). (For purposes of this survey, "average daily occupancy (census)" should be computed as the average daily number of occupied beds over the preceding 12-month period).
7. Report for inpatient care areas only.
8. Report on two classes of surge beds:
 - i. Critical Care/Monitored Beds
 - ii. General Medical-Surgical Beds (Unmonitored)
9. To calculate staffing needs, use an austere nurse-to-patient staffing ratio of 1:5 for Critical Care/Monitored beds and 1:20 for General Medical-Surgical Beds (Unmonitored).
10. Assume 30 percent of staff will not report to work due to inability to reach the facility, illness, or personal or family safety concerns.
11. Use 2005 Department of Finance (DOF) population tables to determine relevant population basis for surge goals: 1:2000 for infectious disease and 1:20,000 for other classes (botulinum or chemical poisoning; burn and trauma; and radiation-induced injury).

Appendix E

CALIFORNIA HEALTHCARE SURGE CAPACITY SURVEY ASSUMPTIONS FOR HOSPITALS

Assumptions Tied to Specific Benchmarks:

Benchmark 2-1: Surge Bed Capacity: For each of the types of injury or illness listed in the survey, consider what special requirements (i.e., supplies, pharmaceuticals, equipment, staff and other services) are necessary for medical management when counting a “surge bed”. The physical bed and required supplies and staff are considered a unit. For example, a surge bed for a botulinum patient may require the allocation of a ventilator for patient care. Include all resources that may be required for the medical management of the patient.

- **Acute Botulinum or Other Acute Chemical Poisoning**
 - Assume 50% of patients with botulism will require ventilators. Other staff besides respirator therapists will potentially manage the ventilated patients
 - Assume that the majority of patients exposed to nerve agents will require hospitalization
 - Consider the amount of atropine, 2-PAM, Valium and ventilator support required and available
- **Trauma and Burn Care**
 - Consider issues related to wound management, infection control, and pain management
 - Patient transfer to a burn ward is not possible
 - Consider challenges including analgesia, tetanus, infection control, fluid management, hypothermia, wound management/debridement, and surgeon availability
- **Radiation Induced Injury**
 - Consider fluid management, pain control, infection control, blood product availability for bone marrow suppression issues, potassium iodide, EDTA, DTPA, Prussian Blue, other antidotes, general supportive care, and isolation needs of patients
 - Consider need to prioritize life-threatening traumatic/burn injuries
 - Consider need to decontaminate prior to admittance to facility

Benchmark 2-5: Pharmaceutical Caches

- **Hospital Personnel and Medical Staff:** Include all employees of the hospital, whether full-time or part-time, in addition to temporary and per diem workers, and medical staff. Include all persons performing any hospital-based function, including direct health care and transport, as well as other support functions.

Benchmark 2-6: Personal Protective Equipment

- **Hospital Personnel Requiring PPE:** All employees of the hospital, medical staff, whether full-time or part-time, in addition to temporary and per diem workers, and independent physicians caring for patients at the facility who require PPE during a BT event. Include medical transport providers employed by hospital.

Appendix E
CALIFORNIA HEALTHCARE SURGE CAPACITY SURVEY
ASSUMPTIONS FOR HOSPITALS

- Use the following definitions for PPE:
 - Level A Protection*– Includes all of the following: Self Contained breathing Apparatus (SCBA), totally encapsulating chemical protective suit, gloves, and boots.
 - Level B Protection*– Includes all of the following: Self Contained breathing Apparatus (SCBA), hooded chemical-resistant clothing, gloves and boots.
 - Level C Protection* – Includes all of the following: powered air purifying respirator (PAPR), hooded chemical-resistant clothing, gloves and boots.
 - Level D Protection* – N95 filtering facepiece (mask), gloves, gowns that are not chemical-resistant, goggles/face shields.

Appendix F

Surge Capacity Staffing

The California Emergency Medical Services Authority (EMSA), using HRSA grant and other funds, is working with CDHS to address the challenges of surge capacity staffing using a comprehensive, tiered approach to recruiting, retaining, and deploying volunteers. This approach relies on pre-registered and credentialed volunteers, but also accommodates “just-in-time” volunteers, some with medical training, but many without.

Emergency System for the Advanced Registration of Volunteer Health Professionals (ESAR-VHP)

HRSA requires states to develop an ESAR-VHP to establish and maintain a registry of healthcare volunteers. EMSA is testing a pilot program that could be used in an emergency today, registering up to 5,000 doctors, nurses, paramedics, and pharmacists. Emergency medical technicians (EMTs) cannot register in ESAR-VHP because there is no EMT registry to provide credentialing and EMTs do not undergo background checks. Full implementation will begin September 1, 2006. This system registers and credentials licensed healthcare volunteers from this state or others. Volunteers would be deployed through the Emergency Services Act, Government Code §8657: Disaster Service Worker Volunteer Program (DSWVP). This provides workers' compensation and a limited immunity from liability for volunteers who are registered as Disaster Service Workers while providing care during a disaster.

Medical Reserve Corps (MRCs)

MRCs are county-based teams of medical, nursing, and ancillary medical personnel, created after 9/11 as a local asset with federal funding. MRCs operate in 28 counties. The goals of MRCs are to identify teams of medical and support personnel, develop minimum standards, provide training, and support public health and other health care providers in responding to local disasters. The State encourages and supports the development of additional MRCs and is working to integrate them more fully into ESAR-VHP.

California Medical Assistance Teams (Cal-MATs)

Cal-MATs are teams of 120 volunteer medical, nursing, and ancillary personnel strategically located throughout the state that rapidly deploy and be self sufficient for 72 hours. Each team can care for 500 patients a day. The Governor's Budget, via EMSA-08, proposes funds for EMSA to develop three of these teams for the State.

Disaster Medical Assistance Teams (DMATs)

DMATs are voluntary medical response teams composed of state volunteers and deployed through a federalized system. California has six medical DMATs and one mental health DMAT. The State provides some economic support for DMATs through the HRSA grant and will continue to coordinate efforts with these teams to ensure common standards and training opportunities.

Appendix F

Surge Capacity Staffing

California Service Corps (CSC)

All other volunteers (non-professional and just-in-time) that offer medical assistance during a disaster could register with the CSC. Such registration and deployment organized through the state provides the volunteers with the protections of the DSWVP. EMSA is working CSC to develop a program to register and recruit volunteers and provide just-in-time training. These volunteers could staff shelters or provide minimal medical support.

There are currently no liability waivers for hospitals when they accept volunteers to care for patients during a disaster. That is why ESAR-VHP is so important. Pre-registered and credentialed volunteers can be absorbed by healthcare facilities under the DSWVP, which reduces the liability exposure of the hospitals (credentialing, which is mandated by the regs, is already done).